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1981

RESULTS OF A SURVEY of the OPERATING PERFORMANCE of the P-H-C-P WHOLESALER INDUSTRY

PROFESSIONALLY PREPARED BY
MANAGEMENT FORESIGHT, INC.
1670 FISHINGER ROAD
COLUMBUS, OHIO 43221

for
AMERICAN SUPPLY ASSOCIATION
221 N. LaSalle Street
Chicago, Illinois 60601

THE NATIONAL ASSOCIATION OF FULL-SERVICE WHOLESALERS
OF PLUMBING, HEATING, COOLING AND PIPING PRODUCTS

BEST AVAILABLE COPY

AMERICAN SUPPLY ASSOCIATION

REPORT ON FINANCIAL PERFORMANCE

YEAR 1981

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MANAGEMENT FORESIGHT INCORPORATED
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Dear ASA Member:

This is the first year Management Foresight has prepared the American Supply Association Annual Survey. The results presented in the following report are based upon survey forms submitted by 316 ASA members. The 1980 report was based upon 262 responses.

The report is divided into three major sections as follows:

A - All Firms Results

Section A contains "median" and "quartile" results for "All Firms" that participated in the Survey. For each performance measure information is also provided on the number of firms providing the data needed to calculate the measure and the pages in Section B where more detailed survey results can be found.

B - Detailed Survey Results

This section contains 46 pages. Each page contains the information for the various survey results "groupings" for one performance measure. The order of the measures in Section B is the same as the order in which they appear in Section A.

The major groupings used in this report are as follows:

- All Reporting Firms
- Product Emphasis

In this group four sub-groups were defined based upon the sales mix of the participating firms as follows:

Plumbing Emphasis - Firms that obtained more than 50% of their sales from plumbing products.

Industrial Pipe, Valves and Fittings Emphasis - More than 50% from Industrial PVF.

Plumbing and Industrial Pipe, Valves and Fittings Emphasis - More than 50% of sales from plumbing and Industrial PVF products combined but less than 50% in each category alone.

HVAC & Other Emphasis - Firms that cannot be classified in any of the three above groups; or, those firms with less than 50% of sales in combined plumbing supplies and equipment, and industrial pipe, valves and fittings.

- Sales Volume Groups

  In order to make the sales volume groups more useful the data were "double cut"; that is, each major "product emphasis" group was further divided into sales volume groups. Results for each of the product emphasis - sales volume groups are presented.

- Regions

  Survey results are also presented in Section B for each of the major ASA Regions. These results are not "double cut"; that is, the results include All Firms in each region without differentiation of their product emphasis or sales volume. The regional definitions used are shown on page 2 of the survey form which is included in this report in Section C as page C-2.

C - Definition of the Performance Measures Used in the Survey

This section consists of two parts - a survey form and a word definition with numerical calculations for each performance measure. If you have a question on how one of the performance measures included in Sections A and B is defined, refer to the appropriate page in Section C where the measure is defined in words and a sample calculation for a typical firm is provided.

Firms that submitted their data in the 1981 survey received a Performance Analysis (PAR) Report. This report presented calculations for each performance measure for the participant's firm as well as the appropriate industry comparative data. For example for "% Sales change" the PAR would report results for the individual firm (with the ratio already calculated), for "All ASA Firms", for the firm's particular "Product Emphasis" group, for the firm's "Sales Volume Group", for the firm's "Region" and for the "Return on Assets" profitability group. Therefore, the PAR Report provides several significant advantages:

- The individual owner/manager does not have to make any calculations on his own. This saves time and minimizes the possibility of error.

- The PAR Report is available sooner because the publication lag necessary to produce the industry report is eliminated.

- The PAR Report saves the individual manager considerable time in interpreting the survey results because the appropriate comparative data are shown on the same page as the results for his firm.

- The PAR Reports contain additional, more detailed measures of performance and the very valuable "return on total assets" profitability comparisons.

We and the industry owe a vote of thanks to those ASA members who took the time and trouble to complete and return their individual firm survey forms. Such support is essential if this and other such Association activities are to be successful.

If you have any question about the results presented in the following pages please contact me or Bob Slakey, the chairman of the ASA Management Methods Committee.

Sincerely,

Peter Mullins

Peter L. Mullins

PLM/ns

SECTION A

INDUSTRY PERFORMANCE SURVEY

1981 Results

for

AMERICAN SUPPLY ASSOCIATION

PERFORMANCE OVERVIEW

Grouped by ALL REPORTING FIRMS	All Reporting Firms		
	LOWER QUARTILE	MEDIAN	UPPER QUARTILE
OVERALL PERFORMANCE			
Net Profit After Taxes to Net Worth (%)	3.34	7.79	12.11
Total Assets to Net Worth (X)	2.43	1.74	1.41
Net Profit After Tax to Total Assets (%)	1.77	4.40	7.16
Total Asset Turnover (Sls/Tot Assets)(X)	2.12	2.50	2.98
Net Profit After Taxes to Net Sales (%)	.75	1.75	2.81
SALES PERFORMANCE			
Dollars of Net Sales ($000)	2547.80	4430.04	9365.31
Percent Sales Change Over Prior Year (%)	-4.40	.94	9.84
Warehouse Sales as % of Total Sales (%)	81.55	89.94	95.88

PRODUCT EMPHASIS

The data below are not "median-quartile" values, but rather are "weighted averages." These show the sales mix for each group of firms taken as a whole.

% Plumbing Supplies & Equipment		42.49	
% Heating & Cooling Supplies & Equipment		9.99	
% Industl PV&F (Pipe Valves & Fittings)		30.48	
% Other Industrial Supplies & Equipment		4.35	
% Other Product Sales		12.68	
% Total Product Sales		100.00	

PROFITABILITY (Gross Profit)

Gross Profit % on Net Sales (%)	21.52	24.71	27.68
Gross Profit % on Direct Shipments (%)	8.39	10.74	14.25
Gross Profit % on Warehouse Sales (%)	23.11	25.89	28.99

MANAGEMENT INDICATORS

Grouped by ALL REPORTING FIRMS

	All Reporting Firms		
	LOWER QUARTILE	MEDIAN	UPPER QUARTILE
OPERATING EXPENSE CONTROL			
Total Operating Exp as % Net Sales (%)	25.13	21.65	18.43
Total Operating Exp as % Gr Profit (%)	95.53	89.05	81.07
Non-people Expense as % of Net Sales (%)	9.18	7.46	5.75
Non-people Expense as % of Gr Profit (%)	36.08	29.64	24.00
PERSONNEL PRODUCTIVITY			
Net Sales per Employee ($000)	128.63	162.04	198.44
Gross Profit per Employee ($000)	32.52	37.88	46.85
Average Compensation per Employee ($000)	26.32	21.93	19.01
Total Compensation as % of Net Sales (%)	16.73	14.08	11.75
Total Compensation as % of Gr Profit (%)	63.62	57.71	50.93
INVENTORY MANAGEMENT			
Percent of Firms on LIFO (%)		55.81	
Cost of Whse Goods Sold to Avg Inven (X)	2.73	3.35	4.50
No. of Days Avg Inventory Carried (Days)	133.72	109.15	81.15
Total Cost of Goods Sold to Avg Invn (X)	3.01	3.84	5.20
Whse Gr Margin Return on Avg Inventry(%)	95.25	119.43	150.54
Turn & Earn Profitability Index (%)	70.06	88.51	111.37
ACCOUNTS RECEIVABLE MANAGEMENT			
Average Collection Period (Days)	51.47	43.85	37.12
Gross Margin Return on Receivables (%)	162.35	203.41	250.50
ASSET AND FINANCIAL MANAGEMENT			
Current Asset Turn (Sls/Curr Assets) (X)	2.48	2.96	3.49
Total Debt to Net Worth (%)	142.77	74.09	40.52
Current Debt to Net Worth (%)	101.87	53.55	29.54
Curr Assets Minus Inventory/Curr Debt(X)	.78	1.12	1.74

INCOME STATEMENT

Grouped by ALL REPORTING FIRMS	All Reporting Firms		
	LOWER QUARTILE	MEDIAN	UPPER QUARTILE
All figures below calculated as a % of net sales.			
Net Sales (%)	100.00	100.00	100.00
Cost of Goods Sold (%)	78.48	75.29	72.32
Gross Profit (%)	21.52	24.71	27.68
Total Operating Expenses (%)	25.13	21.65	18.43
Net Operating Profit (%)	1.19	2.64	4.71
Non-operating Income (%)	.90	1.70	2.54
Total Income (%)	2.76	4.57	6.37
Non-operating Expenses (%)	3.30	2.29	1.51
Net Profit Before Income Taxes (%)	.73	2.42	4.05
Income Taxes (%)	.12	.62	1.42
Net Profit After Income Taxes (%)	.75	1.75	2.81

SECTION B

INDUSTRY PERFORMANCE SURVEY

1981 Results

for

AMERICAN SUPPLY ASSOCIATION

NET PROFIT AFTER TAXES TO NET WORTH (%)

	LOWER QUARTILE	MEDIAN	UPPER QUARTILE	NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms	3.34	7.79	12.11	278
PRODUCT EMPHASIS				
Plumbing Emphasis	3.05	8.20	12.69	137
Industl PV&F Emphasis	6.14	10.42	14.16	40
Plumb + IPV&F Emphasis	2.98	7.58	11.72	54
HVAC & Other Emphasis	-.79	6.06	10.34	44
NET SALES VOLUME				
Plumbing: Under $3MM Sls	2.19	7.91	12.07	47
Plumbing: $3MM-$7MM Sls	4.48	8.74	13.13	48
Plumbing: $7MM-$12MM Sls	2.33	5.68	13.56	18
Plumbing: Over $12MM Sls	5.15	8.84	14.38	24
Industl PV&F: Under $4MM Sls	.15	10.57	15.86	13
Industl PV&F: $4MM-$12MM Sls	6.43	8.70	10.77	14
Industl PV&F: Over $12MM Sls	7.03	11.79	15.47	13
Plumb + IPV&F: Under $3MM Sls	2.46	4.92	8.01	17
Plumb + IPV&F: $3MM-$7MM Sls	2.68	10.01	17.28	21
Plumb + IPV&F: Over $7MM Sls	4.76	8.98	11.11	16
HVAC & Other: Under $3MM Sls	-9.96	5.36	10.38	15
HVAC & Other: $3MM-$8MM Sls	2.08	5.36	9.12	14
HVAC & Other: Over $8MM Sls	-.79	6.72	10.54	15
REGION				
New England	5.82	9.42	23.43	18
New York State	.01	9.36	12.79	15
New York City		-		
Middle Atlantic Region	4.64	7.09	12.00	35
East Central Region	.75	4.77	9.76	43
Southern Region	4.45	9.00	12.89	32
Michigan	-17.34	2.19	9.41	13
Chicago	-.47	3.53	8.92	12
Mid-America Region	.67	5.36	11.23	45
Louisiana & Texas	5.85	12.07	15.60	19
Rocky Mountain Region	7.48	12.24	19.65	11
Pacific Northwest	-.84	9.75	13.38	7
Northern California	7.17	8.83	10.63	19
Pacific Southwest	7.69	10.75	19.17	8

TOTAL ASSETS TO NET WORTH (X)

	LOWER QUARTILE	MEDIAN	UPPER QUARTILE	NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms	2.43	1.74	1.41	306
PRODUCT EMPHASIS				
Plumbing Emphasis	2.53	1.79	1.42	152
Industl PV&F Emphasis	2.22	1.64	1.50	43
Plumb + IPV&F Emphasis	2.22	1.52	1.31	57
HVAC & Other Emphasis	3.07	2.02	1.60	51
NET SALES VOLUME				
Plumbing: Under $3MM Sls	2.65	1.74	1.38	53
Plumbing: $3MM-$7MM Sls	2.14	1.72	1.44	51
Plumbing: $7MM-$12MM Sls	3.39	1.78	1.40	23
Plumbing: Over $12MM Sls	2.86	2.23	1.65	25
Industl PV&F: Under $4MM Sls	2.25	1.97	1.51	14
Industl PV&F: $4MM-$12MM Sls	2.08	1.64	1.33	14
Industl PV&F: Over $12MM Sls	2.30	1.59	1.50	15
Plumb + IPV&F: Under $3MM Sls	1.68	1.37	1.19	19
Plumb + IPV&F: $3MM-$7MM Sls	2.78	1.63	1.33	21
Plumb + IPV&F: Over $7MM Sls	2.22	1.54	1.42	17
HVAC & Other: Under $3MM Sls	3.04	2.00	1.58	18
HVAC & Other: $3MM-$8MM Sls	3.29	2.19	1.36	17
HVAC & Other: Over $8MM Sls	3.15	1.84	1.68	16
REGION				
New England	3.62	1.80	1.28	20
New York State	1.98	1.63	1.36	16
New York City		-		
Middle Atlantic Region	2.57	1.88	1.45	37
East Central Region	2.60	1.77	1.37	47
Southern Region	2.54	1.78	1.38	35
Michigan	1.96	1.63	1.49	15
Chicago	1.93	1.45	1.28	13
Mid-America Region	2.81	1.74	1.48	48
Louisiana & Texas	2.42	1.86	1.45	24
Rocky Mountain Region	2.22	1.65	1.43	12
Pacific Northwest	3.45	1.97	1.55	9
Northern California	2.16	1.62	1.25	20
Pacific Southwest	2.94	2.17	1.97	8

NET PROFIT AFTER TAX TO TOTAL ASSETS (%)

	LOWER QUARTILE	MEDIAN	UPPER QUARTILE	NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms	1.77	4.40	7.16	281
PRODUCT EMPHASIS				
Plumbing Emphasis	1.70	4.48	7.22	138
Industl PV&F Emphasis	2.65	5.75	7.83	41
Plumb + IPV&F Emphasis	2.11	3.93	7.42	54
HVAC & Other Emphasis	-.25	3.60	5.85	45
NET SALES VOLUME				
Plumbing: Under $3MM Sls	1.06	4.40	7.18	47
Plumbing: $3MM-$7MM Sls	2.69	4.58	8.30	49
Plumbing: $7MM-$12MM Sls	.76	3.94	7.66	18
Plumbing: Over $12MM Sls	2.42	4.23	6.38	24
Industl PV&F: Under $4MM Sls	.42	5.75	8.19	13
Industl PV&F: $4MM-$12MM Sls	2.94	5.05	7.39	15
Industl PV&F: Over $12MM Sls	4.10	6.56	8.70	13
Plumb + IPV&F: Under $3MM Sls	1.09	3.32	5.80	17
Plumb + IPV&F: $3MM-$7MM Sls	2.05	4.29	8.23	21
Plumb + IPV&F: Over $7MM Sls	2.73	4.37	7.60	16
HVAC & Other: Under $3MM Sls	-2.78	3.41	6.58	16
HVAC & Other: $3MM-$8MM Sls	1.07	3.41	5.77	14
HVAC & Other: Over $8MM Sls	-.57	4.07	5.83	15
REGION				
New England	3.22	4.98	12.23	18
New York State	.00	5.31	7.57	15
New York City		-		
Middle Atlantic Region	2.21	3.67	6.00	35
East Central Region	.30	3.83	6.56	43
Southern Region	3.16	4.91	7.16	32
Michigan	-7.98	1.71	5.58	13
Chicago	-.26	2.18	6.81	13
Mid-America Region	.38	3.17	6.46	45
Louisiana & Texas	2.70	5.38	11.56	20
Rocky Mountain Region	3.47	7.41	8.69	11
Pacific Northwest	-.53	4.62	5.85	7
Northern California	4.21	5.60	7.14	19
Pacific Southwest	1.68	4.56	7.77	9

TOTAL ASSET TURNOVER (SLS/TOT ASSETS)(X)

	LOWER QUARTILE	MEDIAN	UPPER QUARTILE	NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms	2.12	2.50	2.98	315
PRODUCT EMPHASIS				
Plumbing Emphasis	2.10	2.53	3.00	158
Industl PV&F Emphasis	2.12	2.57	3.11	45
Plumb + IPV&F Emphasis	2.16	2.40	3.01	57
HVAC & Other Emphasis	2.08	2.47	2.75	52
NET SALES VOLUME				
Plumbing: Under $3MM Sls	2.05	2.47	2.96	55
Plumbing: $3MM-$7MM Sls	1.94	2.52	2.95	53
Plumbing: $7MM-$12MM Sls	2.34	2.55	3.35	24
Plumbing: Over $12MM Sls	2.38	2.65	3.12	26
Industl PV&F: Under $4MM Sls	2.05	2.70	3.06	14
Industl PV&F: $4MM-$12MM Sls	2.18	2.56	3.50	15
Industl PV&F: Over $12MM Sls	1.80	2.55	3.17	16
Plumb + IPV&F: Under $3MM Sls	1.79	2.27	2.83	19
Plumb + IPV&F: $3MM-$7MM Sls	2.22	2.50	3.40	21
Plumb + IPV&F: Over $7MM Sls	2.21	2.46	3.13	17
HVAC & Other: Under $3MM Sls	2.00	2.13	2.67	19
HVAC & Other: $3MM-$8MM Sls	2.41	2.55	2.82	17
HVAC & Other: Over $8MM Sls	2.05	2.45	2.78	16
REGION				
New England	2.10	2.36	2.83	20
New York State	1.83	2.33	3.17	16
New York City		-		
Middle Atlantic Region	2.01	2.60	3.02	37
East Central Region	2.15	2.57	2.88	47
Southern Region	2.25	2.62	3.17	38
Michigan	1.66	2.15	2.33	15
Chicago	1.89	1.99	2.36	14
Mid-America Region	2.05	2.40	2.71	49
Louisiana & Texas	2.52	3.11	3.53	27
Rocky Mountain Region	2.18	2.47	3.07	12
Pacific Northwest	2.39	2.96	3.18	9
Northern California	2.11	2.46	2.85	20
Pacific Southwest	2.57	2.89	3.53	9

NET PROFIT AFTER TAXES TO NET SALES (%)

	LOWER QUARTILE	MEDIAN	UPPER QUARTILE	NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms	.75	1.75	2.81	281
PRODUCT EMPHASIS				
Plumbing Emphasis	.74	1.77	2.75	138
Industl PV&F Emphasis	1.17	2.15	3.87	41
Plumb + IPV&F Emphasis	.86	1.60	2.50	54
HVAC & Other Emphasis	-.11	1.46	2.70	45
NET SALES VOLUME				
Plumbing: Under $3MM Sls	.41	1.74	2.63	47
Plumbing: $3MM-$7MM Sls	.98	2.00	3.09	49
Plumbing: $7MM-$12MM Sls	.25	1.35	3.02	18
Plumbing: Over $12MM Sls	.93	1.65	2.48	24
Industl PV&F: Under $4MM Sls	.27	1.97	2.97	13
Industl PV&F: $4MM-$12MM Sls	1.15	1.53	3.89	15
Industl PV&F: Over $12MM Sls	1.91	2.53	4.06	13
Plumb + IPV&F: Under $3MM Sls	.59	1.54	2.44	17
Plumb + IPV&F: $3MM-$7MM Sls	.83	1.56	2.78	21
Plumb + IPV&F: Over $7MM Sls	1.05	1.77	3.21	16
HVAC & Other: Under $3MM Sls	-1.38	1.39	3.16	16
HVAC & Other: $3MM-$8MM Sls	.46	1.26	2.10	14
HVAC & Other: Over $8MM Sls	-.46	1.69	2.87	15
REGION				
New England	1.44	2.25	4.65	18
New York State	.00	2.08	2.95	15
New York City		-		
Middle Atlantic Region	.87	1.58	2.64	35
East Central Region	.10	1.49	2.53	43
Southern Region	1.10	1.70	2.51	32
Michigan	-4.46	.74	2.49	13
Chicago	-.14	1.03	2.81	13
Mid-America Region	.16	1.11	2.22	45
Louisiana & Texas	.91	1.83	3.67	20
Rocky Mountain Region	1.29	2.85	3.36	11
Pacific Northwest	-.18	1.56	2.02	7
Northern California	1.44	2.41	3.76	19
Pacific Southwest	.56	1.69	2.28	9

DOLLARS OF NET SALES ($000)

	LOWER QUARTILE	MEDIAN	UPPER QUARTILE	NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms	2547.80	4430.04	9365.31	316
PRODUCT EMPHASIS				
Plumbing Emphasis	2413.21	4204.53	8054.02	159
Industl PV&F Emphasis	3193.32	6277.02	17511.4	45
Plumb + IPV&F Emphasis	2395.25	4716.90	9117.73	57
HVAC & Other Emphasis	2571.56	4041.82	11254.1	52
NET SALES VOLUME				
Plumbing: Under $3MM Sls	1544.48	1835.43	2489.96	56
Plumbing: $3MM-$7MM Sls	3770.06	4404.84	5089.37	53
Plumbing: $7MM-$12MM Sls	7504.81	8134.92	9461.65	24
Plumbing: Over $12MM Sls	15448.7	19782.9	27842.4	26
Industl PV&F: Under $4MM Sls	1953.43	2577.74	3150.15	14
Industl PV&F: $4MM-$12MM Sls	5075.89	6179.33	7337.02	15
Industl PV&F: Over $12MM Sls	16549.8	20880.8	31751.8	16
Plumb + IPV&F: Under $3MM Sls	1371.23	2067.56	2464.85	19
Plumb + IPV&F: $3MM-$7MM Sls	3472.30	4975.40	6018.02	21
Plumb + IPV&F: Over $7MM Sls	9510.16	11252.0	21042.7	17
HVAC & Other: Under $3MM Sls	1866.76	2211.99	2757.47	19
HVAC & Other: $3MM-$8MM Sls	3416.78	4126.44	6012.16	17
HVAC & Other: Over $8MM Sls	11834.4	22221.4	50031.0	16
REGION				
New England	2533.43	4455.63	8882.32	20
New York State	1376.87	3381.11	5933.94	16
New York City		-		
Middle Atlantic Region	2246.46	3729.66	8845.98	37
East Central Region	2505.13	4121.09	9155.52	47
Southern Region	3321.13	5385.21	11750.2	38
Michigan	2067.56	4716.90	7715.00	15
Chicago	2396.41	3720.53	7198.85	14
Mid-America Region	2384.62	4299.03	15019.3	49
Louisiana & Texas	2932.22	4170.80	9484.29	27
Rocky Mountain Region	3119.54	9029.14	11851.3	13
Pacific Northwest	3608.92	6994.06	20400.3	9
Northern California	2428.27	3832.68	11823.8	20
Pacific Southwest	1891.81	4705.91	7390.44	9

PERCENT SALES CHANGE OVER PRIOR YEAR (%)

	LOWER QUARTILE	MEDIAN	UPPER QUARTILE	NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms	-4.40	.94	9.84	285
PRODUCT EMPHASIS				
Plumbing Emphasis	-5.17	.45	8.46	145
Industl PV&F Emphasis	-.90	3.57	17.02	42
Plumb + IPV&F Emphasis	-4.38	2.81	10.36	51
HVAC & Other Emphasis	-3.56	-.83	7.76	45
NET SALES VOLUME				
Plumbing: Under $3MM Sls	-6.68	-.06	10.64	50
Plumbing: $3MM-$7MM Sls	-6.23	-.61	8.84	46
Plumbing: $7MM-$12MM Sls	-3.82	3.58	5.94	23
Plumbing: Over $12MM Sls	-1.41	1.57	11.78	26
Industl PV&F: Under $4MM Sls	-2.63	.51	12.15	13
Industl PV&F: $4MM-$12MM Sls	-5.73	1.04	12.45	14
Industl PV&F: Over $12MM Sls	1.34	8.07	26.62	15
Plumb + IPV&F: Under $3MM Sls	-5.14	-1.50	10.99	15
Plumb + IPV&F: $3MM-$7MM Sls	-4.13	4.05	8.38	20
Plumb + IPV&F: Over $7MM Sls	-4.61	6.18	10.28	16
HVAC & Other: Under $3MM Sls	-7.79	-1.37	6.07	16
HVAC & Other: $3MM-$8MM Sls	-2.55	-.89	9.22	14
HVAC & Other: Over $8MM Sls	-3.01	-.19	15.64	15
REGION				
New England	.56	7.90	14.48	17
New York State	-.71	5.92	9.80	15
New York City		-		
Middle Atlantic Region	-2.26	.59	8.27	35
East Central Region	-4.06	-.32	6.95	44
Southern Region	-1.39	4.80	14.14	33
Michigan	-14.92	-9.50	-1.62	14
Chicago	-13.58	-5.32	4.11	10
Mid-America Region	-5.84	-1.11	5.44	45
Louisiana & Texas	-2.61	5.01	15.44	25
Rocky Mountain Region	4.67	13.13	16.49	12
Pacific Northwest	-7.35	-4.10	4.09	8
Northern California	-8.81	-3.20	4.78	16
Pacific Southwest	-2.68	1.23	11.38	9

WAREHOUSE SALES AS % OF TOTAL SALES (%)

	LOWER QUARTILE	MEDIAN	UPPER QUARTILE	NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms	81.55	89.94	95.88	239
PRODUCT EMPHASIS				
Plumbing Emphasis	83.71	90.43	95.81	122
Industl PV&F Emphasis	73.18	85.21	94.35	35
Plumb + IPV&F Emphasis	79.38	88.38	95.68	43
HVAC & Other Emphasis	85.00	91.60	97.26	38
NET SALES VOLUME				
Plumbing: Under $3MM Sls	83.70	93.49	98.32	40
Plumbing: $3MM-$7MM Sls	85.96	92.64	97.29	39
Plumbing: $7MM-$12MM Sls	87.31	92.13	94.13	20
Plumbing: Over $12MM Sls	78.34	84.38	87.36	23
Industl PV&F: Under $4MM Sls	78.58	89.87	96.78	9
Industl PV&F: $4MM-$12MM Sls	76.93	87.13	97.48	12
Industl PV&F: Over $12MM Sls	68.14	79.26	88.27	14
Plumb + IPV&F: Under $3MM Sls	79.81	91.74	96.00	11
Plumb + IPV&F: $3MM-$7MM Sls	79.49	90.02	97.17	16
Plumb + IPV&F: Over $7MM Sls	79.19	86.56	92.49	16
HVAC & Other: Under $3MM Sls	89.46	96.13	99.84	13
HVAC & Other: $3MM-$8MM Sls	87.76	94.46	98.04	13
HVAC & Other: Over $8MM Sls	70.08	85.12	90.77	12
REGION				
New England	85.94	91.74	96.52	13
New York State	84.35	92.22	97.90	13
New York City		-		
Middle Atlantic Region	81.93	91.63	97.11	26
East Central Region	81.84	92.07	96.00	38
Southern Region	77.34	84.32	91.84	25
Michigan	84.52	95.10	98.84	10
Chicago	84.47	90.62	97.47	10
Mid-America Region	82.13	89.92	94.08	43
Louisiana & Texas	81.55	92.72	96.31	21
Rocky Mountain Region	79.33	85.21	90.11	11
Pacific Northwest	85.50	89.20	94.83	7
Northern California	79.13	88.12	94.99	15
Pacific Southwest		88.00		5

% PLUMBING SUPPLIES & EQUIPMENT

		WEIGHTED MEAN		NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms		42.49		313
PRODUCT EMPHASIS				
Plumbing Emphasis		69.19		159
Industl PV&F Emphasis		9.54		45
Plumb + IPV&F Emphasis		39.96		57
HVAC & Other Emphasis		31.44		52
NET SALES VOLUME				
Plumbing: Under $3MM Sls		80.82		56
Plumbing: $3MM-$7MM Sls		72.57		53
Plumbing: $7MM-$12MM Sls		69.50		24
Plumbing: Over $12MM Sls		67.02		26
Industl PV&F: Under $4MM Sls		12.88		14
Industl PV&F: $4MM-$12MM Sls		4.21		15
Industl PV&F: Over $12MM Sls		10.02		16
Plumb + IPV&F: Under $3MM Sls		43.40		19
Plumb + IPV&F: $3MM-$7MM Sls		39.61		21
Plumb + IPV&F: Over $7MM Sls		39.68		17
HVAC & Other: Under $3MM Sls		31.77		19
HVAC & Other: $3MM-$8MM Sls		31.59		17
HVAC & Other: Over $8MM Sls		31.40		16
REGION				
New England		38.23		20
New York State		41.41		16
New York City		-		
Middle Atlantic Region		46.83		36
East Central Region		19.30		47
Southern Region		54.89		38
Michigan		30.32		15
Chicago		24.73		14
Mid-America Region		44.09		49
Louisiana & Texas		74.63		27
Rocky Mountain Region		63.76		13
Pacific Northwest		49.38		9
Northern California		42.92		18
Pacific Southwest		26.94		9

% HEATING & COOLING SUPPLIES & EQUIPMENT

	WEIGHTED MEAN	NO. OF FIRMS
ALL REPORTING FIRMS		
All Reporting Firms	9.99	313
PRODUCT EMPHASIS		
Plumbing Emphasis	9.85	159
Industl PV&F Emphasis	1.39	45
Plumb + IPV&F Emphasis	15.68	57
HVAC & Other Emphasis	17.97	52
NET SALES VOLUME		
Plumbing: Under $3MM Sls	9.34	56
Plumbing: $3MM-$7MM Sls	11.38	53
Plumbing: $7MM-$12MM Sls	15.35	24
Plumbing: Over $12MM Sls	8.37	26
Industl PV&F: Under $4MM Sls	3.72	14
Industl PV&F: $4MM-$12MM Sls	1.53	15
Industl PV&F: Over $12MM Sls	1.28	16
Plumb + IPV&F: Under $3MM Sls	23.34	19
Plumb + IPV&F: $3MM-$7MM Sls	20.39	21
Plumb + IPV&F: Over $7MM Sls	13.42	17
HVAC & Other: Under $3MM Sls	31.96	19
HVAC & Other: $3MM-$8MM Sls	24.11	17
HVAC & Other: Over $8MM Sls	16.17	16
REGION		
New England	27.73	20
New York State	17.46	16
New York City	-	
Middle Atlantic Region	18.92	36
East Central Region	7.56	47
Southern Region	6.13	38
Michigan	9.35	15
Chicago	16.34	14
Mid-America Region	13.04	49
Louisiana & Texas	6.01	27
Rocky Mountain Region	4.86	13
Pacific Northwest	2.47	9
Northern California	21.12	18
Pacific Southwest	.81	9

% INDUSTL PV&F (PIPE VALVES & FITTINGS)

		WEIGHTED MEAN		NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms		30.48		313
PRODUCT EMPHASIS				
Plumbing Emphasis		12.44		159
Industl PV&F Emphasis		80.38		45
Plumb + IPV&F Emphasis		27.62		57
HVAC & Other Emphasis		4.37		52
NET SALES VOLUME				
Plumbing: Under $3MM Sls		5.70		56
Plumbing: $3MM-$7MM Sls		8.20		53
Plumbing: $7MM-$12MM Sls		8.81		24
Plumbing: Over $12MM Sls		14.99		26
Industl PV&F: Under $4MM Sls		70.33		14
Industl PV&F: $4MM-$12MM Sls		90.78		15
Industl PV&F: Over $12MM Sls		79.57		16
Plumb + IPV&F: Under $3MM Sls		19.91		19
Plumb + IPV&F: $3MM-$7MM Sls		29.82		21
Plumb + IPV&F: Over $7MM Sls		27.80		17
HVAC & Other: Under $3MM Sls		5.71		19
HVAC & Other: $3MM-$8MM Sls		7.31		17
HVAC & Other: Over $8MM Sls		3.88		16
REGION				
New England		28.94		20
New York State		29.09		16
New York City		-		
Middle Atlantic Region		20.05		36
East Central Region		56.42		47
Southern Region		14.16		38
Michigan		50.98		15
Chicago		46.82		14
Mid-America Region		22.13		49
Louisiana & Texas		10.60		27
Rocky Mountain Region		13.61		13
Pacific Northwest		43.23		9
Northern California		16.98		18
Pacific Southwest		62.51		9

% OTHER INDUSTRIAL SUPPLIES & EQUIPMENT

	WEIGHTED MEAN	NO. OF FIRMS
ALL REPORTING FIRMS		
All Reporting Firms	4.35	313
PRODUCT EMPHASIS		
Plumbing Emphasis	1.18	159
Industl PV&F Emphasis	7.53	45
Plumb + IFV&F Emphasis	6.77	57
HVAC & Other Emphasis	5.26	52
NET SALES VOLUME		
Plumbing: Under $3MM Sls	1.03	56
Plumbing: $3MM-$7MM Sls	1.55	53
Plumbing: $7MM-$12MM Sls	1.36	24
Plumbing: Over $12MM Sls	1.07	26
Industl PV&F: Under $4MM Sls	7.72	14
Industl PV&F: $4MM-$12MM Sls	1.94	15
Industl PV&F: Over $12MM Sls	8.18	16
Plumb + IPV&F: Under $3MM Sls	2.65	19
Plumb + IPV&F: $3MM-$7MM Sls	5.67	21
Plumb + IPV&F: Over $7MM Sls	7.56	17
HVAC & Other: Under $3MM Sls	4.95	19
HVAC & Other: $3MM-$8MM Sls	6.88	17
HVAC & Other: Over $8MM Sls	5.07	16
REGION		
New England	1.96	20
New York State	1.15	16
New York City	-	
Middle Atlantic Region	1.32	36
East Central Region	8.50	47
Southern Region	1.32	38
Michigan	1.23	15
Chicago	8.86	14
Mid-America Region	5.27	49
Louisiana & Texas	4.77	27
Rocky Mountain Region	4.07	13
Pacific Northwest	.25	9
Northern California	4.14	18
Pacific Southwest	8.29	9

% OTHER PRODUCT SALES

		WEIGHTED MEAN		NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms		12.68		313
PRODUCT EMPHASIS				
Plumbing Emphasis		7.34		159
Industl PV&F Emphasis		1.17		45
Plumb + IPV&F Emphasis		9.97		57
HVAC & Other Emphasis		40.95		52
NET SALES VOLUME				
Plumbing: Under $3MM Sls		3.11		56
Plumbing: $3MM-$7MM Sls		6.30		53
Plumbing: $7MM-$12MM Sls		4.98		24
Plumbing: Over $12MM Sls		8.55		26
Industl PV&F: Under $4MM Sls		5.35		14
Industl PV&F: $4MM-$12MM Sls		1.53		15
Industl PV&F: Over $12MM Sls		.95		16
Plumb + IPV&F: Under $3MM Sls		10.71		19
Plumb + IPV&F: $3MM-$7MM Sls		4.50		21
Plumb + IPV&F: Over $7MM Sls		11.55		17
HVAC & Other: Under $3MM Sls		25.62		19
HVAC & Other: $3MM-$8MM Sls		30.12		17
HVAC & Other: Over $8MM Sls		43.48		16
REGION				
New England		3.14		20
New York State		10.91		16
New York City		-		
Middle Atlantic Region		12.88		36
East Central Region		8.21		47
Southern Region		23.51		38
Michigan		8.12		15
Chicago		3.24		14
Mid-America Region		15.47		49
Louisiana & Texas		3.99		27
Rocky Mountain Region		13.70		13
Pacific Northwest		4.67		9
Northern California		14.84		18
Pacific Southwest		1.45		9

GROSS PROFIT % ON NET SALES (%)

	LOWER QUARTILE	MEDIAN	UPPER QUARTILE	NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms	21.52	24.71	27.68	315
PRODUCT EMPHASIS				
Plumbing Emphasis	21.51	24.35	27.21	158
Industl PV&F Emphasis	19.08	25.06	28.53	45
Plumb + IPV&F Emphasis	22.18	24.47	27.76	57
HVAC & Other Emphasis	21.46	26.05	28.24	52
NET SALES VOLUME				
Plumbing: Under $3MM Sls	21.53	24.99	27.55	55
Plumbing: $3MM-$7MM Sls	21.51	25.24	28.34	53
Plumbing: $7MM-$12MM Sls	21.80	23.70	26.65	24
Plumbing: Over $12MM Sls	21.10	22.21	24.88	26
Industl PV&F: Under $4MM Sls	25.99	29.70	32.05	14
Industl PV&F: $4MM-$12MM Sls	21.97	26.69	27.94	15
Industl PV&F: Over $12MM Sls	17.90	20.98	25.05	16
Plumb + IPV&F: Under $3MM Sls	23.14	27.25	29.26	19
Plumb + IPV&F: $3MM-$7MM Sls	23.21	25.09	28.90	21
Plumb + IPV&F: Over $7MM Sls	19.75	23.32	25.14	17
HVAC & Other: Under $3MM Sls	22.89	26.99	28.16	19
HVAC & Other: $3MM-$8MM Sls	26.05	27.33	29.00	17
HVAC & Other: Over $8MM Sls	19.57	21.28	23.62	16
REGION				
New England	24.63	27.29	30.39	20
New York State	24.54	27.59	28.97	16
New York City		-		
Middle Atlantic Region	21.75	24.77	28.77	37
East Central Region	21.97	25.36	27.08	47
Southern Region	18.90	21.24	24.05	38
Michigan	25.06	27.62	29.77	15
Chicago	24.36	29.97	31.32	14
Mid-America Region	23.32	25.03	27.46	49
Louisiana & Texas	19.82	23.99	26.75	27
Rocky Mountain Region	18.84	21.04	23.07	12
Pacific Northwest	18.46	20.41	26.40	9
Northern California	23.13	24.96	27.19	20
Pacific Southwest	20.50	23.18	26.97	9

GROSS PROFIT % ON DIRECT SHIPMENTS (%)

	LOWER QUARTILE	MEDIAN	UPPER QUARTILE	NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms	8.39	10.74	14.25	200
PRODUCT EMPHASIS				
Plumbing Emphasis	7.83	10.00	13.44	101
Industl PV&F Emphasis	8.38	10.34	15.95	30
Plumb + IPV&F Emphasis	8.24	10.00	12.34	38
HVAC & Other Emphasis	11.51	14.01	15.64	30
NET SALES VOLUME				
Plumbing: Under $3MM Sls	6.00	8.80	14.03	29
Plumbing: $3MM-$7MM Sls	8.00	10.00	15.20	31
Plumbing: $7MM-$12MM Sls	9.64	11.41	14.19	20
Plumbing: Over $12MM Sls	7.51	9.49	11.64	21
Industl PV&F: Under $4MM Sls	9.66	12.30	23.53	9
Industl PV&F: $4MM-$12MM Sls	5.33	7.51	9.14	8
Industl PV&F: Over $12MM Sls	8.96	11.13	15.52	13
Plumb + IPV&F: Under $3MM Sls	5.14	10.43	14.77	9
Plumb + IPV&F: $3MM-$7MM Sls	6.42	9.00	12.57	13
Plumb + IPV&F: Over $7MM Sls	9.50	10.63	11.85	16
HVAC & Other: Under $3MM Sls	11.36	14.98	21.00	9
HVAC & Other: $3MM-$8MM Sls	10.55	13.88	15.64	10
HVAC & Other: Over $8MM Sls	11.67	14.01	15.00	11
REGION				
New England	9.87	10.00	14.70	11
New York State	7.44	15.92	26.35	8
New York City		-		
Middle Atlantic Region	8.99	11.20	14.09	21
East Central Region	9.08	10.72	15.00	31
Southern Region	8.00	11.67	12.94	19
Michigan	6.24	11.20	16.18	9
Chicago	7.73	11.04	21.50	9
Mid-America Region	9.47	12.00	17.00	39
Louisiana & Texas	7.45	9.09	12.00	17
Rocky Mountain Region	6.85	10.53	12.70	10
Pacific Northwest		13.26		6
Northern California	5.00	8.40	10.12	13
Pacific Southwest		8.85		5

GROSS PROFIT % ON WAREHOUSE SALES (%)

	LOWER QUARTILE	MEDIAN	UPPER QUARTILE	NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms	23.11	25.89	28.99	220
PRODUCT EMPHASIS				
Plumbing Emphasis	23.31	25.59	28.93	112
Industl PV&F Emphasis	21.76	26.18	30.31	32
Plumb + IPV&F Emphasis	23.99	26.94	29.08	41
HVAC & Other Emphasis	23.14	26.90	29.01	34
NET SALES VOLUME				
Plumbing: Under $3MM Sls	23.71	25.63	29.74	36
Plumbing: $3MM-$7MM Sls	23.08	25.75	29.49	35
Plumbing: $7MM-$12MM Sls	22.92	25.42	27.64	20
Plumbing: Over $12MM Sls	24.01	25.79	27.83	21
Industl PV&F: Under $4MM Sls	24.33	28.99	33.39	9
Industl PV&F: $4MM-$12MM Sls	23.83	27.78	29.79	10
Industl PV&F: Over $12MM Sls	20.06	21.33	26.39	13
Plumb + IPV&F: Under $3MM Sls	26.80	28.45	30.25	10
Plumb + IPV&F: $3MM-$7MM Sls	24.43	26.94	29.97	15
Plumb + IPV&F: Over $7MM Sls	21.81	24.82	27.52	16
HVAC & Other: Under $3MM Sls	25.18	27.64	29.42	12
HVAC & Other: $3MM-$8MM Sls	27.33	28.60	29.96	11
HVAC & Other: Over $8MM Sls	22.16	23.02	25.25	11
REGION				
New England	26.05	27.67	34.07	12
New York State	25.11	28.92	30.29	10
New York City		-		
Middle Atlantic Region	22.94	28.71	30.74	24
East Central Region	24.44	26.41	28.26	34
Southern Region	20.39	22.97	25.12	22
Michigan	24.96	27.34	31.31	10
Chicago	24.08	30.71	36.53	9
Mid-America Region	24.28	26.37	28.97	41
Louisiana & Texas	20.74	25.75	28.84	19
Rocky Mountain Region	22.19	23.60	26.38	10
Pacific Northwest	19.63	21.41	25.88	7
Northern California	24.31	25.76	29.08	15
Pacific Southwest		24.24		5

TOTAL OPERATING EXP AS % NET SALES (%)

	LOWER QUARTILE	MEDIAN	UPPER QUARTILE	NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms	25.13	21.65	18.43	315
PRODUCT EMPHASIS				
Plumbing Emphasis	25.06	21.61	18.42	158
Industl PV&F Emphasis	24.34	20.58	15.07	45
Plumb + IPV&F Emphasis	25.14	21.24	19.43	57
HVAC & Other Emphasis	25.90	23.53	19.28	52
NET SALES VOLUME				
Plumbing: Under $3MM Sls	26.83	23.13	18.37	55
Plumbing: $3MM-$7MM Sls	25.74	22.47	18.45	53
Plumbing: $7MM-$12MM Sls	23.27	21.42	18.70	24
Plumbing: Over $12MM Sls	21.62	19.54	18.13	26
Industl PV&F: Under $4MM Sls	29.80	24.91	22.33	14
Industl PV&F: $4MM-$12MM Sls	23.38	20.58	16.29	15
Industl PV&F: Over $12MM Sls	18.34	15.54	13.05	16
Plumb + IPV&F: Under $3MM Sls	28.55	25.36	19.93	19
Plumb + IPV&F: $3MM-$7MM Sls	24.48	22.94	20.59	21
Plumb + IPV&F: Over $7MM Sls	20.69	19.59	17.78	17
HVAC & Other: Under $3MM Sls	25.44	24.59	22.07	19
HVAC & Other: $3MM-$8MM Sls	27.30	25.13	23.82	17
HVAC & Other: Over $8MM Sls	21.25	18.89	17.35	16
REGION				
New England	25.44	22.18	20.35	20
New York State	26.41	23.29	21.34	16
New York City		-		
Middle Atlantic Region	26.17	22.60	18.45	37
East Central Region	25.41	23.33	19.55	47
Southern Region	20.87	17.82	16.29	38
Michigan	31.01	24.07	22.94	15
Chicago	30.68	25.11	24.41	14
Mid-America Region	25.38	22.80	19.18	49
Louisiana & Texas	23.94	19.44	16.30	27
Rocky Mountain Region	19.62	18.01	16.12	12
Pacific Northwest	27.99	20.40	18.77	9
Northern California	23.96	21.12	19.68	20
Pacific Southwest	22.32	20.52	16.19	9

TOTAL OPERATING EXP AS % GR PROFIT (%)

	LOWER QUARTILE	MEDIAN	UPPER QUARTILE	NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms	95.53	89.05	81.07	315
PRODUCT EMPHASIS				
Plumbing Emphasis	96.10	89.51	81.36	158
Industl PV&F Emphasis	89.62	82.73	73.81	45
Plumb + IPV&F Emphasis	96.53	89.93	81.27	57
HVAC & Other Emphasis	98.44	90.22	85.15	52
NET SALES VOLUME				
Plumbing: Under $3MM Sls	98.37	91.44	85.65	55
Plumbing: $3MM-$7MM Sls	95.55	89.17	79.24	53
Plumbing: $7MM-$12MM Sls	97.00	90.27	77.51	24
Plumbing: Over $12MM Sls	93.38	85.17	81.93	26
Industl PV&F: Under $4MM Sls	93.32	88.54	78.51	14
Industl PV&F: $4MM-$12MM Sls	89.65	84.24	75.79	15
Industl PV&F: Over $12MM Sls	84.69	76.03	72.02	16
Plumb + IPV&F: Under $3MM Sls	96.76	92.82	89.90	19
Plumb + IPV&F: $3MM-$7MM Sls	97.96	89.86	79.22	21
Plumb + IPV&F: Over $7MM Sls	92.99	83.65	78.82	17
HVAC & Other: Under $3MM Sls	104.63	89.15	85.05	19
HVAC & Other: $3MM-$8MM Sls	99.05	91.67	87.13	17
HVAC & Other: Over $8MM Sls	95.91	89.11	81.91	16
REGION				
New England	91.85	82.27	74.38	20
New York State	93.13	89.00	77.83	16
New York City		-		
Middle Atlantic Region	94.45	90.25	84.04	37
East Central Region	98.02	90.98	82.40	47
Southern Region	93.93	86.55	79.37	38
Michigan	103.20	96.11	87.69	15
Chicago	99.62	95.01	87.55	14
Mid-America Region	97.54	90.45	80.62	49
Louisiana & Texas	94.49	87.25	80.85	27
Rocky Mountain Region	90.72	78.89	67.94	12
Pacific Northwest	119.70	96.79	84.64	9
Northern California	91.18	87.20	81.00	20
Pacific Southwest	91.35	81.50	74.53	9

NON-PEOPLE EXPENSE AS % OF NET SALES (%)

	LOWER QUARTILE	MEDIAN	UPPER QUARTILE	NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms	9.18	7.46	5.75	288
PRODUCT EMPHASIS				
Plumbing Emphasis	9.82	7.52	5.98	144
Industl PV&F Emphasis	8.17	7.11	4.77	42
Plumb + IPV&F Emphasis	8.20	7.25	5.72	54
HVAC & Other Emphasis	9.11	7.86	5.98	46
NET SALES VOLUME				
Plumbing: Under $3MM Sls	10.38	7.89	6.04	51
Plumbing: $3MM-$7MM Sls	9.47	7.57	5.69	47
Plumbing: $7MM-$12MM Sls	9.42	6.70	5.72	23
Plumbing: Over $12MM Sls	8.83	7.45	6.41	23
Industl PV&F: Under $4MM Sls	9.61	7.64	7.17	12
Industl PV&F: $4MM-$12MM Sls	7.76	7.05	4.79	15
Industl PV&F: Over $12MM Sls	7.16	4.95	4.32	15
Plumb + IPV&F: Under $3MM Sls	9.23	7.90	6.45	16
Plumb + IPV&F: $3MM-$7MM Sls	9.69	7.56	5.93	21
Plumb + IPV&F: Over $7MM Sls	7.35	6.46	5.00	17
HVAC & Other: Under $3MM Sls	9.79	8.68	7.69	15
HVAC & Other: $3MM-$8MM Sls	9.04	7.88	7.38	16
HVAC & Other: Over $8MM Sls	8.42	5.67	4.87	15
REGION				
New England	8.66	7.58	6.10	18
New York State	9.84	8.31	6.09	14
New York City		-		
Middle Atlantic Region	9.91	7.26	6.00	34
East Central Region	9.55	7.72	6.10	45
Southern Region	7.55	6.38	5.30	32
Michigan	13.14	8.39	7.17	14
Chicago	10.35	7.92	7.37	13
Mid-America Region	9.01	7.74	5.45	46
Louisiana & Texas	10.43	6.94	5.38	24
Rocky Mountain Region	7.79	6.61	4.62	12
Pacific Northwest	9.51	7.01	6.30	8
Northern California	8.53	6.92	5.56	18
Pacific Southwest	10.49	7.11	5.15	8

NON-PEOPLE EXPENSE AS % OF GR PROFIT (%)

	LOWER QUARTILE	MEDIAN	UPPER QUARTILE	NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms	36.08	29.64	24.00	288
PRODUCT EMPHASIS				
Plumbing Emphasis	38.34	30.79	25.30	144
Industl PV&F Emphasis	30.85	26.63	21.97	42
Plumb + IPV&F Emphasis	34.12	30.83	23.66	54
HVAC & Other Emphasis	34.24	29.76	23.95	46
NET SALES VOLUME				
Plumbing: Under $3MM Sls	40.53	33.45	25.39	51
Plumbing: $3MM-$7MM Sls	36.21	29.21	24.59	47
Plumbing: $7MM-$12MM Sls	38.90	28.52	23.14	23
Plumbing: Over $12MM Sls	39.65	31.16	27.42	23
Industl PV&F: Under $4MM Sls	31.38	26.61	23.54	12
Industl PV&F: $4MM-$12MM Sls	30.50	26.40	20.98	15
Industl PV&F: Over $12MM Sls	32.57	29.25	21.44	15
Plumb + IPV&F: Under $3MM Sls	36.25	33.37	24.95	16
Plumb + IPV&F: $3MM-$7MM Sls	32.24	30.19	25.81	21
Plumb + IPV&F: Over $7MM Sls	33.66	26.95	20.22	17
HVAC & Other: Under $3MM Sls	37.15	33.09	28.55	15
HVAC & Other: $3MM-$8MM Sls	32.27	27.84	26.09	16
HVAC & Other: Over $8MM Sls	33.13	28.97	23.12	15
REGION				
New England	32.83	28.13	23.55	18
New York State	34.73	32.14	21.70	14
New York City		-		
Middle Atlantic Region	34.79	27.48	23.83	34
East Central Region	35.59	31.35	25.75	45
Southern Region	34.20	28.51	24.83	32
Michigan	38.21	32.56	27.68	14
Chicago	38.56	30.46	27.20	13
Mid-America Region	36.20	28.66	22.86	46
Louisiana & Texas	43.83	31.25	25.30	24
Rocky Mountain Region	35.84	26.46	21.44	12
Pacific Northwest	45.09	36.33	26.70	8
Northern California	34.26	25.69	22.57	18
Pacific Southwest	41.42	28.45	27.05	8

NET SALES PER EMPLOYEE ($000)

	LOWER QUARTILE	MEDIAN	UPPER QUARTILE	NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms	128.63	162.04	198.44	310
PRODUCT EMPHASIS				
Plumbing Emphasis	131.54	162.47	188.72	154
Industl PV&F Emphasis	167.89	198.15	273.36	45
Plumb + IPV&F Emphasis	126.98	157.90	187.58	56
HVAC & Other Emphasis	115.62	133.47	166.22	52
NET SALES VOLUME				
Plumbing: Under $3MM Sls	118.17	142.34	199.72	55
Plumbing: $3MM-$7MM Sls	127.37	162.40	181.55	49
Plumbing: $7MM-$12MM Sls	145.41	161.78	176.93	24
Plumbing: Over $12MM Sls	150.63	178.07	208.84	26
Industl PV&F: Under $4MM Sls	108.88	152.55	201.00	14
Industl PV&F: $4MM-$12MM Sls	175.12	189.77	217.59	15
Industl PV&F: Over $12MM Sls	208.91	284.85	307.13	16
Plumb + IPV&F: Under $3MM Sls	111.30	129.23	160.77	18
Plumb + IPV&F: $3MM-$7MM Sls	129.02	161.43	182.58	21
Plumb + IPV&F: Over $7MM Sls	154.84	178.09	215.81	17
HVAC & Other: Under $3MM Sls	102.07	122.05	158.17	19
HVAC & Other: $3MM-$8MM Sls	108.15	122.15	154.35	17
HVAC & Other: Over $8MM Sls	142.70	153.41	199.04	16
REGION				
New England	141.83	163.67	191.51	19
New York State	86.44	112.46	154.69	14
New York City		-		
Middle Atlantic Region	124.06	161.43	187.54	37
East Central Region	121.33	141.06	163.48	46
Southern Region	140.41	169.63	189.84	37
Michigan	126.39	145.57	178.09	15
Chicago	138.47	172.12	192.38	13
Mid-America Region	127.37	143.99	182.44	49
Louisiana & Texas	132.44	177.65	212.86	27
Rocky Mountain Region	175.42	199.32	249.47	13
Pacific Northwest	137.88	178.88	218.80	9
Northern California	153.85	201.72	239.10	20
Pacific Southwest	146.65	181.00	211.46	9

GROSS PROFIT PER EMPLOYEE ($000)

	LOWER QUARTILE	MEDIAN	UPPER QUARTILE	NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms	32.52	37.88	46.85	309
PRODUCT EMPHASIS				
Plumbing Emphasis	32.60	37.59	44.44	153
Industl PV&F Emphasis	39.75	49.79	59.05	45
Plumb + IPV&F Emphasis	32.57	38.93	45.98	56
HVAC & Other Emphasis	28.82	33.79	41.54	52
NET SALES VOLUME				
Plumbing: Under $3MM Sls	29.76	36.21	48.70	54
Plumbing: $3MM-$7MM Sls	31.75	36.45	42.58	49
Plumbing: $7MM-$12MM Sls	33.76	37.44	42.82	24
Plumbing: Over $12MM Sls	36.26	42.41	45.59	26
Industl PV&F: Under $4MM Sls	35.78	39.96	54.89	14
Industl PV&F: $4MM-$12MM Sls	41.48	46.10	57.15	15
Industl PV&F: Over $12MM Sls	45.92	54.05	74.10	16
Plumb + IPV&F: Under $3MM Sls	30.59	35.13	42.03	18
Plumb + IPV&F: $3MM-$7MM Sls	33.82	38.86	46.09	21
Plumb + IPV&F: Over $7MM Sls	33.84	41.35	50.02	17
HVAC & Other: Under $3MM Sls	27.75	32.92	37.88	19
HVAC & Other: $3MM-$8MM Sls	29.04	34.26	44.97	17
HVAC & Other: Over $8MM Sls	29.75	34.81	43.55	16
REGION				
New England	35.75	46.36	53.42	19
New York State	21.91	30.50	41.06	14
New York City		-		
Middle Atlantic Region	34.33	37.33	44.78	37
East Central Region	30.69	34.61	40.99	46
Southern Region	28.70	34.74	41.36	37
Michigan	36.17	39.46	44.27	15
Chicago	38.65	46.00	54.05	13
Mid-America Region	32.12	36.45	43.57	49
Louisiana & Texas	32.65	38.77	46.29	27
Rocky Mountain Region	38.74	44.18	62.58	12
Pacific Northwest	27.07	39.60	51.45	9
Northern California	44.88	51.74	55.81	20
Pacific Southwest	35.26	41.02	48.39	9

AVERAGE COMPENSATION PER EMPLOYEE ($000)

	LOWER QUARTILE	MEDIAN	UPPER QUARTILE	NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms	26.32	21.93	19.01	286
PRODUCT EMPHASIS				
Plumbing Emphasis	25.44	21.40	18.16	143
Industl PV&F Emphasis	31.05	25.32	22.43	42
Plumb + IPV&F Emphasis	25.44	22.07	19.78	53
HVAC & Other Emphasis	26.34	20.40	17.77	46
NET SALES VOLUME				
Plumbing: Under $3MM Sls	27.42	20.09	16.82	52
Plumbing: $3MM-$7MM Sls	24.18	20.93	18.31	45
Plumbing: $7MM-$12MM Sls	23.98	21.72	19.30	23
Plumbing: Over $12MM Sls	26.24	23.96	18.33	23
Industl PV&F: Under $4MM Sls	27.41	24.19	22.37	12
Industl PV&F: $4MM-$12MM Sls	30.85	25.35	20.62	15
Industl PV&F: Over $12MM Sls	32.99	25.38	23.12	15
Plumb + IPV&F: Under $3MM Sls	24.96	20.88	17.65	15
Plumb + IPV&F: $3MM-$7MM Sls	24.06	21.50	19.43	21
Plumb + IPV&F: Over $7MM Sls	29.62	24.54	20.59	17
HVAC & Other: Under $3MM Sls	23.53	18.85	17.17	15
HVAC & Other: $3MM-$8MM Sls	26.14	21.26	19.64	16
HVAC & Other: Over $8MM Sls	26.69	20.44	18.02	15
REGION				
New England	31.03	21.78	17.94	17
New York State	21.82	17.46	15.31	14
New York City		-		
Middle Atlantic Region	26.93	21.58	19.45	34
East Central Region	23.59	20.75	18.87	44
Southern Region	22.80	18.59	16.30	32
Michigan	28.14	23.66	22.37	14
Chicago	32.55	27.73	24.54	12
Mid-America Region	26.47	22.23	19.74	46
Louisiana & Texas	22.94	19.76	18.49	24
Rocky Mountain Region	28.44	23.89	21.16	13
Pacific Northwest	25.43	24.88	21.64	8
Northern California	31.23	29.37	26.61	18
Pacific Southwest	26.67	22.91	16.54	8

TOTAL COMPENSATION AS % OF NET SALES (%)

	LOWER QUARTILE	MEDIAN	UPPER QUARTILE	NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms	16.73	14.08	11.75	289
PRODUCT EMPHASIS				
Plumbing Emphasis	16.66	13.76	11.83	145
Industl PV&F Emphasis	16.38	12.86	9.36	42
Plumb + IPV&F Emphasis	16.72	14.22	11.90	54
HVAC & Other Emphasis	17.13	15.55	12.62	46
NET SALES VOLUME				
Plumbing: Under $3MM Sls	17.09	14.44	12.08	52
Plumbing: $3MM-$7MM Sls	17.39	14.29	12.08	47
Plumbing: $7MM-$12MM Sls	15.63	13.35	11.39	23
Plumbing: Over $12MM Sls	14.36	12.34	10.69	23
Industl PV&F: Under $4MM Sls	21.40	16.85	13.05	12
Industl PV&F: $4MM-$12MM Sls	15.40	13.65	10.78	15
Industl PV&F: Over $12MM Sls	12.94	9.28	8.14	15
Plumb + IPV&F: Under $3MM Sls	18.85	15.62	13.44	16
Plumb + IPV&F: $3MM-$7MM Sls	16.87	14.22	11.64	21
Plumb + IPV&F: Over $7MM Sls	14.65	12.46	11.62	17
HVAC & Other: Under $3MM Sls	17.11	15.61	13.39	15
HVAC & Other: $3MM-$8MM Sls	18.52	16.97	16.27	16
HVAC & Other: Over $8MM Sls	14.35	12.70	11.72	15
REGION				
New England	15.92	14.55	11.35	18
New York State	18.74	16.46	13.35	14
New York City		-		
Middle Atlantic Region	17.12	14.37	11.39	34
East Central Region	17.25	14.58	12.57	45
Southern Region	13.85	11.87	10.53	32
Michigan	18.61	16.68	14.82	14
Chicago	21.23	17.39	14.53	13
Mid-America Region	17.00	15.21	12.90	46
Louisiana & Texas	13.38	11.58	10.51	24
Rocky Mountain Region	12.48	11.74	9.36	13
Pacific Northwest	17.65	13.20	10.60	8
Northern California	16.51	14.24	12.32	18
Pacific Southwest	13.58	10.82	9.22	8

TOTAL COMPENSATION AS % OF GR PROFIT (%)

	LOWER QUARTILE	MEDIAN	UPPER QUARTILE	NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms	63.62	57.71	50.93	288
PRODUCT EMPHASIS				
Plumbing Emphasis	63.77	57.42	50.31	144
Industl PV&F Emphasis	61.46	53.74	48.28	42
Plumb + IPV&F Emphasis	66.19	59.07	53.90	54
HVAC & Other Emphasis	66.38	58.02	52.10	46
NET SALES VOLUME				
Plumbing: Under $3MM Sls	66.55	60.08	51.36	51
Plumbing: $3MM-$7MM Sls	64.55	58.26	51.82	47
Plumbing: $7MM-$12MM Sls	63.41	57.84	49.42	23
Plumbing: Over $12MM Sls	59.08	56.07	47.35	23
Industl PV&F: Under $4MM Sls	62.63	57.13	51.42	12
Industl PV&F: $4MM-$12MM Sls	61.82	57.39	49.98	15
Industl PV&F: Over $12MM Sls	52.09	49.12	45.70	15
Plumb + IPV&F: Under $3MM Sls	67.52	60.00	56.28	16
Plumb + IPV&F: $3MM-$7MM Sls	66.18	57.70	50.25	21
Plumb + IPV&F: Over $7MM Sls	62.59	59.86	50.49	17
HVAC & Other: Under $3MM Sls	74.76	53.51	50.89	15
HVAC & Other: $3MM-$8MM Sls	66.55	61.11	57.42	16
HVAC & Other: Over $8MM Sls	65.89	58.68	49.49	15
REGION				
New England	60.35	53.12	46.35	18
New York State	64.98	56.86	55.06	14
New York City		-		
Middle Atlantic Region	61.88	57.40	51.71	34
East Central Region	67.12	60.31	52.08	45
Southern Region	64.18	56.49	49.39	32
Michigan	67.73	63.12	53.18	14
Chicago	69.56	63.49	58.64	13
Mid-America Region	65.13	60.39	55.87	46
Louisiana & Texas	57.10	51.61	47.22	24
Rocky Mountain Region	58.04	49.32	47.37	12
Pacific Northwest	70.74	60.19	50.51	8
Northern California	62.73	59.12	52.03	18
Pacific Southwest	61.05	51.06	40.46	8

PERCENT OF FIRMS ON LIFO (%)

		ARITHMETIC MEAN		NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms		55.81		310
PRODUCT EMPHASIS				
Plumbing Emphasis		56.05		157
Industl PV&F Emphasis		75.56		45
Plumb + IPV&F Emphasis		50.00		56
HVAC & Other Emphasis		44.90		49
NET SALES VOLUME				
Plumbing: Under $3MM Sls		32.73		55
Plumbing: $3MM-$7MM Sls		63.46		52
Plumbing: $7MM-$12MM Sls		62.50		24
Plumbing: Over $12MM Sls		84.62		26
Industl PV&F: Under $4MM Sls		57.14		14
Industl PV&F: $4MM-$12MM Sls		80.00		15
Industl PV&F: Over $12MM Sls		87.50		16
Plumb + IPV&F: Under $3MM Sls		36.84		19
Plumb + IPV&F: $3MM-$7MM Sls		40.00		20
Plumb + IPV&F: Over $7MM Sls		76.47		17
HVAC & Other: Under $3MM Sls		41.18		17
HVAC & Other: $3MM-$8MM Sls		37.50		16
HVAC & Other: Over $8MM Sls		56.25		16
REGION				
New England		55.00		20
New York State		31.25		16
New York City		-		
Middle Atlantic Region		26.47		34
East Central Region		70.21		47
Southern Region		52.63		38
Michigan		60.00		15
Chicago		57.14		14
Mid-America Region		61.22		49
Louisiana & Texas		70.83		24
Rocky Mountain Region		46.15		13
Pacific Northwest		66.67		9
Northern California		65.00		20
Pacific Southwest		55.56		9

COST OF WHSE GOODS SOLD TO AVG INVEN (X)

	LOWER QUARTILE	MEDIAN	UPPER QUARTILE	NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms	2.73	3.35	4.50	218
PRODUCT EMPHASIS				
Plumbing Emphasis	2.80	3.52	4.64	110
Industl PV&F Emphasis	2.43	2.97	3.64	32
Plumb + IPV&F Emphasis	2.50	3.10	4.54	41
HVAC & Other Emphasis	2.83	3.07	3.99	34
NET SALES VOLUME				
Plumbing: Under $3MM Sls	3.12	3.68	4.85	34
Plumbing: $3MM-$7MM Sls	2.34	3.34	5.18	35
Plumbing: $7MM-$12MM Sls	2.80	3.42	4.28	20
Plumbing: Over $12MM Sls	3.08	3.69	4.41	21
Industl PV&F: Under $4MM Sls	2.45	3.01	4.46	9
Industl PV&F: $4MM-$12MM Sls	2.30	2.80	3.38	10
Industl PV&F: Over $12MM Sls	2.44	2.97	3.63	13
Plumb + IPV&F: Under $3MM Sls	1.97	2.48	3.02	10
Plumb + IPV&F: $3MM-$7MM Sls	3.07	3.85	4.82	15
Plumb + IPV&F: Over $7MM Sls	2.87	3.26	4.49	16
HVAC & Other: Under $3MM Sls	2.31	2.76	4.24	12
HVAC & Other: $3MM-$8MM Sls	3.04	3.17	4.16	11
HVAC & Other: Over $8MM Sls	2.88	3.48	3.93	11
REGION				
New England	2.24	3.44	4.09	12
New York State	1.95	2.36	4.67	10
New York City		-		
Middle Atlantic Region	2.64	4.33	4.77	24
East Central Region	2.53	3.28	3.96	34
Southern Region	2.99	3.44	4.24	22
Michigan	2.61	3.01	3.25	10
Chicago	2.15	2.82	4.65	9
Mid-America Region	2.43	3.06	3.58	41
Louisiana & Texas	3.50	4.52	6.33	18
Rocky Mountain Region	2.73	3.73	4.58	10
Pacific Northwest	2.73	3.33	4.53	7
Northern California	2.72	3.19	4.07	14
Pacific Southwest		3.23		5

NO. OF DAYS AVG INVENTORY CARRIED (DAYS)

	LOWER QUARTILE	MEDIAN	UPPER QUARTILE	NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms	133.72	109.15	81.15	218
PRODUCT EMPHASIS				
Plumbing Emphasis	130.54	103.77	78.71	110
Industl PV&F Emphasis	150.02	123.15	100.24	32
Plumb + IPV&F Emphasis	146.56	117.78	80.35	41
HVAC & Other Emphasis	129.06	118.98	91.70	34
NET SALES VOLUME				
Plumbing: Under $3MM Sls	117.29	99.22	75.24	34
Plumbing: $3MM-$7MM Sls	155.96	109.34	70.50	35
Plumbing: $7MM-$12MM Sls	130.32	106.79	85.26	20
Plumbing: Over $12MM Sls	119.04	98.82	82.82	21
Industl PV&F: Under $4MM Sls	155.19	121.35	84.07	9
Industl PV&F: $4MM-$12MM Sls	159.28	130.35	108.66	10
Industl PV&F: Over $12MM Sls	149.45	123.03	100.68	13
Plumb + IPV&F: Under $3MM Sls	186.09	147.66	121.48	10
Plumb + IPV&F: $3MM-$7MM Sls	118.73	94.77	75.80	15
Plumb + IPV&F: Over $7MM Sls	127.31	112.27	81.32	16
HVAC & Other: Under $3MM Sls	157.89	132.39	88.31	12
HVAC & Other: $3MM-$8MM Sls	119.90	115.19	87.83	11
HVAC & Other: Over $8MM Sls	126.74	104.90	92.99	11
REGION				
New England	164.69	106.11	89.61	12
New York State	187.90	155.02	80.63	10
New York City		-		
Middle Atlantic Region	138.64	84.39	76.57	24
East Central Region	144.53	111.50	92.41	34
Southern Region	122.10	106.16	86.20	22
Michigan	141.37	121.64	112.46	10
Chicago	170.19	129.37	78.55	9
Mid-America Region	150.03	119.11	102.14	41
Louisiana & Texas	104.50	80.93	57.73	18
Rocky Mountain Region	134.11	97.98	79.68	10
Pacific Northwest	133.73	109.74	80.66	7
Northern California	135.46	114.72	90.60	14
Pacific Southwest		112.98		5

TOTAL COST OF GOODS SOLD TO AVG INVN (X)

	LOWER QUARTILE	MEDIAN	UPPER QUARTILE	NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms	3.01	3.84	5.20	313
PRODUCT EMPHASIS				
Plumbing Emphasis	2.97	4.21	5.40	156
Industl PV&F Emphasis	3.01	3.43	5.91	45
Plumb + IPV&F Emphasis	2.97	3.92	5.07	57
HVAC & Other Emphasis	3.03	3.54	4.59	52
NET SALES VOLUME				
Plumbing: Under $3MM Sls	2.55	3.74	5.49	53
Plumbing: $3MM-$7MM Sls	2.91	3.75	5.87	53
Plumbing: $7MM-$12MM Sls	3.12	4.34	5.05	24
Plumbing: Over $12MM Sls	3.40	4.74	5.47	26
Industl PV&F: Under $4MM Sls	3.15	3.47	6.23	14
Industl PV&F: $4MM-$12MM Sls	2.76	3.37	5.93	15
Industl PV&F: Over $12MM Sls	3.20	3.66	5.78	16
Plumb + IPV&F: Under $3MM Sls	2.38	3.27	4.54	19
Plumb + IPV&F: $3MM-$7MM Sls	3.17	4.12	5.97	21
Plumb + IPV&F: Over $7MM Sls	3.29	4.21	5.38	17
HVAC & Other: Under $3MM Sls	2.63	3.05	4.38	19
HVAC & Other: $3MM-$8MM Sls	3.14	3.60	4.65	17
HVAC & Other: Over $8MM Sls	3.45	4.10	4.80	16
REGION				
New England	2.65	3.93	4.97	20
New York State	2.22	3.04	6.11	16
New York City		-		
Middle Atlantic Region	2.94	4.57	5.48	37
East Central Region	3.05	3.62	4.91	47
Southern Region	3.01	4.28	5.35	38
Michigan	2.68	3.26	3.78	15
Chicago	2.64	3.36	4.51	14
Mid-America Region	2.70	3.41	4.33	49
Louisiana & Texas	4.21	5.96	8.64	26
Rocky Mountain Region	3.12	4.38	5.48	12
Pacific Northwest	3.26	4.27	5.10	9
Northern California	3.13	3.58	4.84	19
Pacific Southwest	3.69	6.28	8.61	9

WHSE GR MARGIN RETURN ON AVG INVENTRY(%)

	LOWER QUARTILE	MEDIAN	UPPER QUARTILE	NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms	95.25	119.43	150.54	220
PRODUCT EMPHASIS				
Plumbing Emphasis	98.64	126.65	156.43	111
Industl PV&F Emphasis	87.87	111.30	139.31	33
Plumb + IPV&F Emphasis	93.58	113.79	147.47	41
HVAC & Other Emphasis	91.25	117.89	146.19	34
NET SALES VOLUME				
Plumbing: Under $3MM Sls	103.64	141.65	180.42	34
Plumbing: $3MM-$7MM Sls	93.62	112.28	145.84	36
Plumbing: $7MM-$12MM Sls	101.31	123.79	144.27	20
Plumbing: Over $12MM Sls	93.98	128.26	152.12	21
Industl PV&F: Under $4MM Sls	109.15	131.99	176.05	9
Industl PV&F: $4MM-$12MM Sls	94.33	107.16	141.89	11
Industl PV&F: Over $12MM Sls	76.87	97.47	129.11	13
Plumb + IPV&F: Under $3MM Sls	85.38	94.04	109.10	10
Plumb + IPV&F: $3MM-$7MM Sls	108.00	150.06	193.16	15
Plumb + IPV&F: Over $7MM Sls	83.75	117.71	142.01	16
HVAC & Other: Under $3MM Sls	80.48	100.57	187.49	12
HVAC & Other: $3MM-$8MM Sls	120.38	133.95	173.22	11
HVAC & Other: Over $8MM Sls	90.93	96.52	122.71	11
REGION				
New England	102.68	133.03	178.97	12
New York State	73.20	100.85	194.95	10
New York City		-		
Middle Atlantic Region	114.77	149.67	192.80	24
East Central Region	91.33	116.40	145.68	34
Southern Region	87.80	111.69	132.02	23
Michigan	101.13	106.79	130.91	10
Chicago	92.95	139.28	246.57	9
Mid-America Region	90.11	112.72	137.00	41
Louisiana & Texas	123.83	142.31	198.83	18
Rocky Mountain Region	87.52	124.62	150.82	10
Pacific Northwest	79.63	112.87	116.77	7
Northern California	93.48	113.71	139.41	14
Pacific Southwest		128.57		6

TURN & EARN PROFITABILITY INDEX (%)

	LOWER QUARTILE	MEDIAN	UPPER QUARTILE	NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms	70.06	88.51	111.37	218
PRODUCT EMPHASIS				
Plumbing Emphasis	70.73	91.86	114.24	110
Industl PV&F Emphasis	65.39	78.88	93.97	32
Plumb + IPV&F Emphasis	68.13	84.91	110.70	41
HVAC & Other Emphasis	69.89	86.55	109.04	34
NET SALES VOLUME				
Plumbing: Under $3MM Sls	77.38	100.94	134.57	34
Plumbing: $3MM-$7MM Sls	68.09	83.69	110.81	35
Plumbing: $7MM-$12MM Sls	75.04	92.39	101.46	20
Plumbing: Over $12MM Sls	68.62	92.44	113.22	21
Industl PV&F: Under $4MM Sls	74.00	94.11	124.08	9
Industl PV&F: $4MM-$12MM Sls	66.52	77.76	85.57	10
Industl PV&F: Over $12MM Sls	58.85	76.96	93.10	13
Plumb + IPV&F: Under $3MM Sls	59.70	68.90	77.35	10
Plumb + IPV&F: $3MM-$7MM Sls	74.70	108.71	134.98	15
Plumb + IPV&F: Over $7MM Sls	65.45	86.26	105.87	16
HVAC & Other: Under $3MM Sls	60.39	72.54	130.03	12
HVAC & Other: $3MM-$8MM Sls	86.64	94.32	122.51	11
HVAC & Other: Over $8MM Sls	70.08	73.83	93.57	11
REGION				
New England	70.69	97.37	124.90	12
New York State	51.72	70.58	137.87	10
New York City		-		
Middle Atlantic Region	77.17	112.09	132.73	24
East Central Region	67.71	85.96	104.13	34
Southern Region	66.77	85.07	105.61	22
Michigan	73.80	77.59	91.62	10
Chicago	67.24	86.64	159.61	9
Mid-America Region	65.81	81.93	98.23	41
Louisiana & Texas	91.82	102.58	140.76	18
Rocky Mountain Region	67.45	95.27	109.80	10
Pacific Northwest	62.57	88.35	93.85	7
Northern California	69.37	83.97	100.53	14
Pacific Southwest		78.30		5

AVERAGE COLLECTION PERIOD (DAYS)

	LOWER QUARTILE	MEDIAN	UPPER QUARTILE	NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms	51.47	43.85	37.12	298
PRODUCT EMPHASIS				
Plumbing Emphasis	51.13	44.14	37.53	150
Industl PV&F Emphasis	49.11	40.07	33.81	41
Plumb + IPV&F Emphasis	56.05	46.91	37.55	55
HVAC & Other Emphasis	51.74	42.54	37.32	50
NET SALES VOLUME				
Plumbing: Under $3MM Sls	50.47	43.89	36.49	53
Plumbing: $3MM-$7MM Sls	58.71	45.81	35.90	48
Plumbing: $7MM-$12MM Sls	50.61	43.54	37.29	24
Plumbing: Over $12MM Sls	47.91	40.92	38.94	25
Industl PV&F: Under $4MM Sls	50.09	43.07	31.77	12
Industl PV&F: $4MM-$12MM Sls	45.88	36.50	33.19	14
Industl PV&F: Over $12MM Sls	54.47	41.42	38.31	15
Plumb + IPV&F: Under $3MM Sls	61.40	49.44	32.13	18
Plumb + IPV&F: $3MM-$7MM Sls	53.00	44.35	36.31	20
Plumb + IPV&F: Over $7MM Sls	55.70	47.82	43.67	17
HVAC & Other: Under $3MM Sls	52.55	46.60	36.28	19
HVAC & Other: $3MM-$8MM Sls	51.12	39.52	34.13	17
HVAC & Other: Over $8MM Sls	50.74	43.33	41.41	14
REGION				
New England	55.35	49.82	44.31	18
New York State	60.74	42.02	35.77	14
New York City		-		
Middle Atlantic Region	56.21	46.39	34.08	36
East Central Region	49.00	43.48	37.63	44
Southern Region	50.90	40.39	35.77	35
Michigan	50.23	46.12	37.78	15
Chicago	53.79	49.69	42.88	13
Mid-America Region	49.49	43.48	36.49	48
Louisiana & Texas	47.72	40.48	34.13	25
Rocky Mountain Region	61.68	49.21	43.11	13
Pacific Northwest	44.85	40.92	31.50	9
Northern California	52.63	41.24	34.98	17
Pacific Southwest	56.29	47.46	38.95	9

GROSS MARGIN RETURN ON RECEIVABLES (%)

	LOWER QUARTILE	MEDIAN	UPPER QUARTILE	NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms	162.35	203.41	250.50	297
PRODUCT EMPHASIS				
Plumbing Emphasis	161.87	198.83	235.05	149
Industl PV&F Emphasis	169.48	218.09	276.50	41
Plumb + IPV&F Emphasis	148.25	206.79	255.61	55
HVAC & Other Emphasis	169.70	207.27	274.19	50
NET SALES VOLUME				
Plumbing: Under $3MM Sls	162.40	211.59	249.72	52
Plumbing: $3MM-$7MM Sls	154.24	186.94	230.67	48
Plumbing: $7MM-$12MM Sls	163.51	203.72	215.24	24
Plumbing: Over $12MM Sls	167.55	194.80	223.90	25
Industl PV&F: Under $4MM Sls	219.13	235.83	300.62	12
Industl PV&F: $4MM-$12MM Sls	176.95	258.10	287.02	14
Industl PV&F: Over $12MM Sls	152.56	166.46	213.73	15
Plumb + IPV&F: Under $3MM Sls	144.55	237.35	272.18	18
Plumb + IPV&F: $3MM-$7MM Sls	168.53	212.97	257.34	20
Plumb + IPV&F: Over $7MM Sls	135.59	158.37	211.01	17
HVAC & Other: Under $3MM Sls	169.91	210.44	276.85	19
HVAC & Other: $3MM-$8MM Sls	193.96	238.45	289.16	17
HVAC & Other: Over $8MM Sls	149.87	174.53	192.72	14
REGION				
New England	184.08	212.62	248.81	18
New York State	161.16	243.22	276.60	14
New York City		-		
Middle Atlantic Region	145.04	209.63	291.46	36
East Central Region	168.73	210.27	255.24	44
Southern Region	157.93	186.83	218.72	35
Michigan	182.06	236.65	269.81	15
Chicago	172.94	204.88	242.05	13
Mid-America Region	170.68	207.18	248.39	48
Louisiana & Texas	154.64	201.08	253.84	25
Rocky Mountain Region	117.71	147.35	203.17	12
Pacific Northwest	163.30	181.99	276.56	9
Northern California	170.28	206.79	276.17	17
Pacific Southwest	153.42	178.28	223.75	9

CURRENT ASSET TURN (SLS/CURR ASSETS) (X)

	LOWER QUARTILE	MEDIAN	UPPER QUARTILE	NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms	2.48	2.96	3.49	315
PRODUCT EMPHASIS				
Plumbing Emphasis	2.47	3.01	3.54	158
Industl PV&F Emphasis	2.44	2.92	3.61	45
Plumb + IPV&F Emphasis	2.45	3.00	3.51	57
HVAC & Other Emphasis	2.52	2.96	3.27	52
NET SALES VOLUME				
Plumbing: Under $3MM Sls	2.31	2.87	3.43	55
Plumbing: $3MM-$7MM Sls	2.40	2.84	3.47	53
Plumbing: $7MM-$12MM Sls	2.61	3.07	3.88	24
Plumbing: Over $12MM Sls	2.74	3.32	3.55	26
Industl PV&F: Under $4MM Sls	2.76	3.01	3.34	14
Industl PV&F: $4MM-$12MM Sls	2.60	2.89	3.68	15
Industl PV&F: Over $12MM Sls	2.08	2.78	3.68	16
Plumb + IPV&F: Under $3MM Sls	2.13	2.63	3.38	19
Plumb + IPV&F: $3MM-$7MM Sls	2.60	3.22	3.77	21
Plumb + IPV&F: Over $7MM Sls	2.59	2.92	3.54	17
HVAC & Other: Under $3MM Sls	2.13	2.62	3.02	19
HVAC & Other: $3MM-$8MM Sls	2.94	3.04	3.21	17
HVAC & Other: Over $8MM Sls	2.57	3.10	3.34	16
REGION				
New England	2.27	2.66	3.12	20
New York State	2.17	2.63	3.49	16
New York City		-		
Middle Atlantic Region	2.66	3.22	3.57	37
East Central Region	2.65	3.00	3.36	47
Southern Region	2.46	3.04	3.83	38
Michigan	1.96	2.71	2.97	15
Chicago	2.23	2.29	2.96	14
Mid-America Region	2.47	2.76	3.09	49
Louisiana & Texas	3.30	3.67	4.19	27
Rocky Mountain Region	2.44	2.86	3.59	12
Pacific Northwest	2.50	3.26	3.84	9
Northern California	2.33	2.88	3.27	20
Pacific Southwest	2.90	3.01	4.96	9

TOTAL DEBT TO NET WORTH (%)

	LOWER QUARTILE	MEDIAN	UPPER QUARTILE	NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms	142.77	74.09	40.52	307
PRODUCT EMPHASIS				
Plumbing Emphasis	152.05	78.07	42.83	153
Industl PV&F Emphasis	122.05	64.21	49.84	43
Plumb + IPV&F Emphasis	122.11	52.28	30.73	57
HVAC & Other Emphasis	207.38	102.09	60.07	51
NET SALES VOLUME				
Plumbing: Under $3MM Sls	162.12	73.51	38.03	54
Plumbing: $3MM-$7MM Sls	113.75	72.02	44.44	51
Plumbing: $7MM-$12MM Sls	238.51	78.07	40.09	23
Plumbing: Over $12MM Sls	185.97	122.92	64.48	25
Industl PV&F: Under $4MM Sls	125.30	96.79	50.44	14
Industl PV&F: $4MM-$12MM Sls	108.10	64.23	32.82	14
Industl PV&F: Over $12MM Sls	130.48	58.62	49.84	15
Plumb + IPV&F: Under $3MM Sls	67.88	36.56	19.14	19
Plumb + IPV&F: $3MM-$7MM Sls	177.92	62.73	32.76	21
Plumb + IPV&F: Over $7MM Sls	122.11	53.63	41.69	17
HVAC & Other: Under $3MM Sls	203.96	100.25	57.53	18
HVAC & Other: $3MM-$8MM Sls	228.52	118.54	35.73	17
HVAC & Other: Over $8MM Sls	214.45	83.69	67.48	16
REGION				
New England	261.11	80.05	28.39	20
New York State	98.18	62.78	35.87	16
New York City		-		
Middle Atlantic Region	156.75	88.28	44.47	37
East Central Region	160.19	76.61	37.12	47
Southern Region	154.38	77.61	38.09	35
Michigan	95.88	62.73	48.61	15
Chicago	92.40	44.94	27.56	13
Mid-America Region	181.24	73.59	47.62	48
Louisiana & Texas	141.73	85.56	44.95	24
Rocky Mountain Region	114.56	60.23	43.65	13
Pacific Northwest	245.21	97.03	55.18	9
Northern California	116.09	62.31	24.48	20
Pacific Southwest	193.45	116.53	96.97	8

CURRENT DEBT TO NET WORTH (%)

	LOWER QUARTILE	MEDIAN	UPPER QUARTILE	NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms	101.87	53.55	29.54	306
PRODUCT EMPHASIS				
Plumbing Emphasis	103.96	57.20	32.54	152
Industl PV&F Emphasis	101.01	51.65	34.64	43
Plumb + IPV&F Emphasis	81.32	41.68	21.72	57
HVAC & Other Emphasis	151.45	77.45	28.51	51
NET SALES VOLUME				
Plumbing: Under $3MM Sls	104.65	51.30	32.59	54
Plumbing: $3MM-$7MM Sls	96.29	55.54	33.05	50
Plumbing: $7MM-$12MM Sls	182.63	40.09	28.89	23
Plumbing: Over $12MM Sls	146.41	88.02	37.96	25
Industl PV&F: Under $4MM Sls	105.31	92.33	40.95	14
Industl PV&F: $4MM-$12MM Sls	101.05	46.06	31.06	14
Industl PV&F: Over $12MM Sls	99.34	49.84	35.47	15
Plumb + IPV&F: Under $3MM Sls	52.56	26.48	16.35	19
Plumb + IPV&F: $3MM-$7MM Sls	120.26	51.92	26.45	21
Plumb + IPV&F: Over $7MM Sls	95.45	48.61	30.50	17
HVAC & Other: Under $3MM Sls	128.37	78.87	27.79	18
HVAC & Other: $3MM-$8MM Sls	148.97	62.52	34.53	17
HVAC & Other: Over $8MM Sls	183.24	61.67	31.92	16
REGION				
New England	132.98	71.12	24.21	20
New York State	78.83	52.24	34.03	16
New York City		-		
Middle Atlantic Region	121.89	43.96	25.61	37
East Central Region	96.38	58.62	31.37	47
Southern Region	112.39	52.75	34.01	35
Michigan	59.95	49.34	30.67	15
Chicago	88.17	42.89	22.02	12
Mid-America Region	147.52	48.88	27.57	48
Louisiana & Texas	102.03	65.80	41.79	24
Rocky Mountain Region	92.88	49.93	30.68	13
Pacific Northwest	175.11	84.08	54.38	9
Northern California	64.40	40.54	21.46	20
Pacific Southwest	178.13	104.95	94.64	8

CURR ASSETS MINUS INVENTORY/CURR DEBT(X)

	LOWER QUARTILE	MEDIAN	UPPER QUARTILE	NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms	.78	1.12	1.74	311
PRODUCT EMPHASIS				
Plumbing Emphasis	.73	1.09	1.74	154
Industl PV&F Emphasis	.77	1.03	1.56	45
Plumb + IPV&F Emphasis	.92	1.42	1.91	57
HVAC & Other Emphasis	.77	.99	1.57	52
NET SALES VOLUME				
Plumbing: Under $3MM Sls	.67	1.14	1.80	54
Plumbing: $3MM-$7MM Sls	.73	1.07	1.91	51
Plumbing: $7MM-$12MM Sls	.77	1.24	1.72	23
Plumbing: Over $12MM Sls	.77	.97	1.62	26
Industl PV&F: Under $4MM Sls	.78	.94	1.58	14
Industl PV&F: $4MM-$12MM Sls	.86	1.03	1.84	15
Industl PV&F: Over $12MM Sls	.64	1.16	1.65	16
Plumb + IPV&F: Under $3MM Sls	1.23	1.85	2.34	19
Plumb + IPV&F: $3MM-$7MM Sls	.84	1.12	1.81	21
Plumb + IPV&F: Over $7MM Sls	.92	1.14	1.44	17
HVAC & Other: Under $3MM Sls	.81	.98	1.53	19
HVAC & Other: $3MM-$8MM Sls	.72	.85	1.57	17
HVAC & Other: Over $8MM Sls	.72	1.01	1.70	16
REGION				
New England	.81	1.28	2.03	20
New York State	.69	1.00	1.64	16
New York City		-		
Middle Atlantic Region	.75	1.35	1.92	37
East Central Region	.78	1.09	1.55	47
Southern Region	.67	.98	1.62	38
Michigan	.87	1.02	1.54	15
Chicago	.83	1.23	2.01	13
Mid-America Region	.70	1.25	1.82	49
Louisiana & Texas	.79	.97	1.60	25
Rocky Mountain Region	.82	1.26	1.50	12
Pacific Northwest	.58	.98	1.18	9
Northern California	.89	1.76	2.01	19
Pacific Southwest	.55	.88	1.07	9

GROSS PROFIT (%)

	LOWER QUARTILE	MEDIAN	UPPER QUARTILE	NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms	21.52	24.71	27.68	315
PRODUCT EMPHASIS				
Plumbing Emphasis	21.51	24.35	27.21	158
Industl PV&F Emphasis	19.08	25.06	28.53	45
Plumb + IPV&F Emphasis	22.18	24.47	27.76	57
HVAC & Other Emphasis	21.46	26.05	28.24	52
NET SALES VOLUME				
Plumbing: Under $3MM Sls	21.53	24.99	27.55	55
Plumbing: $3MM-$7MM Sls	21.51	25.24	28.34	53
Plumbing: $7MM-$12MM Sls	21.80	23.70	26.65	24
Plumbing: Over $12MM Sls	21.10	22.21	24.88	26
Industl PV&F: Under $4MM Sls	25.99	29.70	32.05	14
Industl PV&F: $4MM-$12MM Sls	21.97	26.69	27.94	15
Industl PV&F: Over $12MM Sls	17.90	20.98	25.05	16
Plumb + IPV&F: Under $3MM Sls	23.14	27.25	29.26	19
Plumb + IPV&F: $3MM-$7MM Sls	23.21	25.09	28.90	21
Plumb + IPV&F: Over $7MM Sls	19.75	23.32	25.14	17
HVAC & Other: Under $3MM Sls	22.89	26.99	28.16	19
HVAC & Other: $3MM-$8MM Sls	26.05	27.33	29.00	17
HVAC & Other: Over $8MM Sls	19.57	21.28	23.62	16
REGION				
New England	24.63	27.29	30.39	20
New York State	24.54	27.59	28.97	16
New York City		-		
Middle Atlantic Region	21.75	24.77	28.77	37
East Central Region	21.97	25.36	27.08	47
Southern Region	18.90	21.24	24.05	38
Michigan	25.06	27.62	29.77	15
Chicago	24.36	29.97	31.32	14
Mid-America Region	23.32	25.03	27.46	49
Louisiana & Texas	19.82	23.99	26.75	27
Rocky Mountain Region	18.84	21.04	23.07	12
Pacific Northwest	18.46	20.41	26.40	9
Northern California	23.13	24.96	27.19	20
Pacific Southwest	20.50	23.18	26.97	9

TOTAL OPERATING EXPENSES (%)

	LOWER QUARTILE	MEDIAN	UPPER QUARTILE	NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms	25.13	21.65	18.43	315
PRODUCT EMPHASIS				
Plumbing Emphasis	25.06	21.61	18.42	158
Industl PV&F Emphasis	24.34	20.58	15.07	45
Plumb + IPV&F Emphasis	25.14	21.24	19.43	57
HVAC & Other Emphasis	25.90	23.53	19.28	52
NET SALES VOLUME				
Plumbing: Under $3MM Sls	26.83	23.13	18.37	55
Plumbing: $3MM-$7MM Sls	25.74	22.47	18.45	53
Plumbing: $7MM-$12MM Sls	23.27	21.42	18.70	24
Plumbing: Over $12MM Sls	21.62	19.54	18.13	26
Industl PV&F: Under $4MM Sls	29.80	24.91	22.33	14
Industl PV&F: $4MM-$12MM Sls	23.38	20.58	16.29	15
Industl PV&F: Over $12MM Sls	18.34	15.54	13.05	16
Plumb + IPV&F: Under $3MM Sls	28.55	25.36	19.93	19
Plumb + IPV&F: $3MM-$7MM Sls	24.48	22.94	20.59	21
Plumb + IPV&F: Over $7MM Sls	20.69	19.59	17.78	17
HVAC & Other: Under $3MM Sls	25.44	24.59	22.07	19
HVAC & Other: $3MM-$8MM Sls	27.30	25.13	23.82	17
HVAC & Other: Over $8MM Sls	21.25	18.89	17.35	16
REGION				
New England	25.44	22.18	20.35	20
New York State	26.41	23.29	21.34	16
New York City		-		
Middle Atlantic Region	26.17	22.60	18.45	37
East Central Region	25.41	23.33	19.55	47
Southern Region	20.87	17.82	16.29	38
Michigan	31.01	24.07	22.94	15
Chicago	30.68	25.11	24.41	14
Mid-America Region	25.38	22.80	19.18	49
Louisiana & Texas	23.94	19.44	16.30	27
Rocky Mountain Region	19.62	18.01	16.12	12
Pacific Northwest	27.99	20.40	18.77	9
Northern California	23.96	21.12	19.68	20
Pacific Southwest	22.32	20.52	16.19	9

NET OPERATING PROFIT (%)

	LOWER QUARTILE	MEDIAN	UPPER QUARTILE	NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms	1.19	2.64	4.71	315
PRODUCT EMPHASIS				
Plumbing Emphasis	.94	2.51	4.43	158
Industl PV&F Emphasis	2.32	4.02	5.95	45
Plumb + IPV&F Emphasis	.95	2.29	4.83	57
HVAC & Other Emphasis	.42	2.29	4.06	52
NET SALES VOLUME				
Plumbing: Under $3MM Sls	.37	2.32	4.15	55
Plumbing: $3MM-$7MM Sls	1.18	2.67	4.87	53
Plumbing: $7MM-$12MM Sls	.81	2.24	5.27	24
Plumbing: Over $12MM Sls	1.36	3.04	4.69	26
Industl PV&F: Under $4MM Sls	2.04	3.28	5.42	14
Industl PV&F: $4MM-$12MM Sls	2.00	3.40	6.58	15
Industl PV&F: Over $12MM Sls	3.16	4.31	6.93	16
Plumb + IPV&F: Under $3MM Sls	.95	1.96	3.33	19
Plumb + IPV&F: $3MM-$7MM Sls	.46	2.64	6.04	21
Plumb + IPV&F: Over $7MM Sls	1.45	3.35	5.30	17
HVAC & Other: Under $3MM Sls	-.93	2.56	4.10	19
HVAC & Other: $3MM-$8MM Sls	.26	2.23	3.56	17
HVAC & Other: Over $8MM Sls	.84	2.09	5.28	16
REGION				
New England	2.55	4.46	7.97	20
New York State	1.79	2.97	5.69	16
New York City		-		
Middle Atlantic Region	1.52	2.52	4.72	37
East Central Region	.59	2.29	4.03	47
Southern Region	1.34	2.70	4.25	38
Michigan	-.75	.94	3.40	15
Chicago	.08	1.58	3.14	14
Mid-America Region	.65	2.22	4.43	49
Louisiana & Texas	1.47	2.52	4.61	27
Rocky Mountain Region	2.00	4.60	6.70	12
Pacific Northwest	-3.07	.91	3.13	9
Northern California	2.04	3.19	5.56	20
Pacific Southwest	1.98	4.02	5.23	9

NON-OPERATING INCOME (%)

	LOWER QUARTILE	MEDIAN	UPPER QUARTILE	NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms	.90	1.70	2.54	292
PRODUCT EMPHASIS				
Plumbing Emphasis	1.06	1.98	2.81	144
Industl PV&F Emphasis	.62	1.32	1.73	41
Plumb + IPV&F Emphasis	1.32	1.71	2.49	54
HVAC & Other Emphasis	.83	1.39	2.47	50
NET SALES VOLUME				
Plumbing: Under $3MM Sls	.58	1.50	2.47	46
Plumbing: $3MM-$7MM Sls	1.42	2.24	3.24	50
Plumbing: $7MM-$12MM Sls	1.74	2.09	2.79	23
Plumbing: Over $12MM Sls	1.56	2.30	2.76	25
Industl PV&F: Under $4MM Sls	.26	.60	1.15	11
Industl PV&F: $4MM-$12MM Sls	.83	1.35	1.92	14
Industl PV&F: Over $12MM Sls	1.07	1.49	1.82	16
Plumb + IPV&F: Under $3MM Sls	1.43	1.87	2.54	19
Plumb + IPV&F: $3MM-$7MM Sls	1.31	1.64	2.48	19
Plumb + IPV&F: Over $7MM Sls	1.07	1.71	2.45	16
HVAC & Other: Under $3MM Sls	.77	1.29	2.53	18
HVAC & Other: $3MM-$8MM Sls	.59	1.19	2.43	17
HVAC & Other: Over $8MM Sls	1.18	1.69	2.47	15
REGION				
New England	.96	1.69	2.39	18
New York State	.98	1.66	2.54	15
New York City		-		
Middle Atlantic Region	.47	1.72	2.77	32
East Central Region	.89	1.56	2.43	45
Southern Region	.85	1.66	2.95	36
Michigan	1.46	1.94	2.64	14
Chicago	.59	1.18	2.84	13
Mid-America Region	.95	2.04	2.61	48
Louisiana & Texas	1.35	1.75	2.20	22
Rocky Mountain Region	.98	1.51	2.62	12
Pacific Northwest	.85	1.75	2.47	9
Northern California	1.07	2.07	2.70	20
Pacific Southwest		.31		6

TOTAL INCOME (%)

	LOWER QUARTILE	MEDIAN	UPPER QUARTILE	NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms	2.76	4.57	6.37	313
PRODUCT EMPHASIS				
Plumbing Emphasis	2.81	4.39	6.24	156
Industl PV&F Emphasis	3.17	5.34	7.33	45
Plumb + IPV&F Emphasis	2.21	3.88	6.37	57
HVAC & Other Emphasis	2.52	4.10	6.35	52
NET SALES VOLUME				
Plumbing: Under $3MM Sls	1.77	3.40	5.62	53
Plumbing: $3MM-$7MM Sls	3.41	4.70	6.35	53
Plumbing: $7MM-$12MM Sls	2.89	4.27	7.35	24
Plumbing: Over $12MM Sls	3.77	5.14	7.04	26
Industl PV&F: Under $4MM Sls	2.05	4.16	5.80	14
Industl PV&F: $4MM-$12MM Sls	3.12	5.34	7.55	15
Industl PV&F: Over $12MM Sls	4.52	5.94	8.05	16
Plumb + IPV&F: Under $3MM Sls	2.18	3.78	5.12	19
Plumb + IPV&F: $3MM-$7MM Sls	2.04	3.47	7.45	21
Plumb + IPV&F: Over $7MM Sls	2.94	5.64	6.58	17
HVAC & Other: Under $3MM Sls	2.59	4.66	6.50	19
HVAC & Other: $3MM-$8MM Sls	2.60	3.51	5.04	17
HVAC & Other: Over $8MM Sls	1.91	4.40	7.08	16
REGION				
New England	3.52	5.63	9.98	20
New York State	2.83	5.00	7.72	16
New York City		-		
Middle Atlantic Region	2.48	4.81	6.67	37
East Central Region	2.77	4.11	5.63	46
Southern Region	3.15	4.59	5.71	38
Michigan	1.82	3.40	4.78	15
Chicago	1.29	2.35	5.85	14
Mid-America Region	2.67	4.18	6.25	49
Louisiana & Texas	3.57	4.34	6.96	26
Rocky Mountain Region	3.52	5.72	9.36	12
Pacific Northwest	-.66	2.80	4.83	9
Northern California	3.92	5.98	7.49	20
Pacific Southwest	2.38	4.96	5.74	9

NON-OPERATING EXPENSES (%)

	LOWER QUARTILE	MEDIAN	UPPER QUARTILE	NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms	3.30	2.29	1.51	279
PRODUCT EMPHASIS				
Plumbing Emphasis	3.64	2.38	1.62	136
Industl PV&F Emphasis	3.23	1.94	1.54	42
Plumb + IPV&F Emphasis	3.02	2.11	1.33	52
HVAC & Other Emphasis	3.66	2.59	1.50	47
NET SALES VOLUME				
Plumbing: Under $3MM Sls	3.56	2.33	1.57	40
Plumbing: $3MM-$7MM Sls	3.05	1.96	1.44	49
Plumbing: $7MM-$12MM Sls	4.04	3.35	2.35	21
Plumbing: Over $12MM Sls	3.82	2.46	1.62	26
Industl PV&F: Under $4MM Sls	2.38	1.64	1.26	11
Industl PV&F: $4MM-$12MM Sls	3.94	1.98	1.64	15
Industl PV&F: Over $12MM Sls	2.60	2.27	1.66	16
Plumb + IPV&F: Under $3MM Sls	2.59	1.86	1.62	16
Plumb + IPV&F: $3MM-$7MM Sls	3.45	2.11	.91	20
Plumb + IPV&F: Over $7MM Sls	2.73	2.39	1.42	16
HVAC & Other: Under $3MM Sls	3.83	2.23	1.58	18
HVAC & Other: $3MM-$8MM Sls	3.71	3.01	1.47	15
HVAC & Other: Over $8MM Sls	3.83	2.56	1.50	14
REGION				
New England	3.38	2.10	1.24	16
New York State	2.81	1.93	1.44	14
New York City		-		
Middle Atlantic Region	3.23	1.96	1.40	31
East Central Region	3.19	2.17	1.48	44
Southern Region	3.66	2.62	1.48	36
Michigan	4.96	2.90	1.76	14
Chicago	2.29	2.12	1.60	11
Mid-America Region	3.51	2.59	1.64	47
Louisiana & Texas	2.73	1.89	1.23	23
Rocky Mountain Region	3.74	2.67	1.41	10
Pacific Northwest	3.59	2.81	1.28	8
Northern California	3.60	2.16	1.54	17
Pacific Southwest		2.48		6

NET PROFIT BEFORE INCOME TAXES (%)

	LOWER QUARTILE	MEDIAN	UPPER QUARTILE	NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms	.73	2.42	4.05	312
PRODUCT EMPHASIS				
Plumbing Emphasis	.73	2.44	3.93	156
Industl PV&F Emphasis	1.44	3.02	5.17	45
Plumb + IPV&F Emphasis	.96	2.25	4.04	57
HVAC & Other Emphasis	-.31	1.34	4.55	51
NET SALES VOLUME				
Plumbing: Under $3MM Sls	.21	1.98	3.43	53
Plumbing: $3MM-$7MM Sls	1.53	2.85	4.20	53
Plumbing: $7MM-$12MM Sls	-.10	1.50	3.86	24
Plumbing: Over $12MM Sls	1.22	2.51	4.30	26
Industl PV&F: Under $4MM Sls	.60	2.76	4.26	14
Industl PV&F: $4MM-$12MM Sls	1.36	1.79	5.85	15
Industl PV&F: Over $12MM Sls	2.30	3.61	5.34	16
Plumb + IPV&F: Under $3MM Sls	.33	1.84	3.76	19
Plumb + IPV&F: $3MM-$7MM Sls	.87	1.75	4.66	21
Plumb + IPV&F: Over $7MM Sls	.96	2.93	5.25	17
HVAC & Other: Under $3MM Sls	-.93	1.50	4.62	19
HVAC & Other: $3MM-$8MM Sls	.30	1.30	3.11	16
HVAC & Other: Over $8MM Sls	-1.12	1.99	4.65	16
REGION				
New England	1.53	3.49	7.53	20
New York State	.31	3.56	5.14	16
New York City		-		
Middle Atlantic Region	1.08	2.49	4.87	37
East Central Region	-.10	2.05	3.44	46
Southern Region	.41	2.21	3.59	38
Michigan	-4.55	.10	3.02	15
Chicago	-.07	1.24	2.98	14
Mid-America Region	.15	1.79	3.97	49
Louisiana & Texas	1.50	3.08	4.94	25
Rocky Mountain Region	1.44	4.08	6.04	12
Pacific Northwest	-4.45	1.65	3.34	9
Northern California	2.07	3.28	6.11	20
Pacific Southwest	.84	2.64	3.83	9

INCOME TAXES (%)

	LOWER QUARTILE	MEDIAN	UPPER QUARTILE	NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms	.12	.62	1.42	271
PRODUCT EMPHASIS				
Plumbing Emphasis	.10	.63	1.20	134
Industl PV&F Emphasis	.26	.91	1.86	38
Plumb + IPV&F Emphasis	.20	.69	1.54	50
HVAC & Other Emphasis	-.05	.34	1.48	46
NET SALES VOLUME				
Plumbing: Under $3MM Sls	.14	.53	.88	42
Plumbing: $3MM-$7MM Sls	.07	.62	1.14	49
Plumbing: $7MM-$12MM Sls	.00	.51	1.52	20
Plumbing: Over $12MM Sls	.21	1.12	1.90	23
Industl PV&F: Under $4MM Sls	.36	.83	1.80	10
Industl PV&F: $4MM-$12MM Sls	.10	.37	2.15	14
Industl PV&F: Over $12MM Sls	.86	1.48	2.34	14
Plumb + IPV&F: Under $3MM Sls	.13	.39	1.19	16
Plumb + IPV&F: $3MM-$7MM Sls	.20	.38	1.53	19
Plumb + IPV&F: Over $7MM Sls	.60	1.31	2.09	15
HVAC & Other: Under $3MM Sls	-.77	.31	1.41	16
HVAC & Other: $3MM-$8MM Sls	.11	.32	1.15	15
HVAC & Other: Over $8MM Sls	-.24	1.06	1.72	15
REGION				
New England	.29	.80	2.20	19
New York State	.10	1.29	2.36	15
New York City		-		
Middle Atlantic Region	.30	.76	1.52	33
East Central Region	.11	.46	.86	38
Southern Region	.08	.65	.97	33
Michigan	-.35	.15	.64	13
Chicago	.00	.27	.83	12
Mid-America Region	.03	.60	1.61	41
Louisiana & Texas	.14	.90	1.66	20
Rocky Mountain Region	.60	1.51	2.65	11
Pacific Northwest	-.67	.34	1.31	8
Northern California	.22	.79	2.70	19
Pacific Southwest	.20	.92	1.37	8

NET PROFIT AFTER INCOME TAXES (%)

	LOWER QUARTILE	MEDIAN	UPPER QUARTILE	NO. OF FIRMS
ALL REPORTING FIRMS				
All Reporting Firms	.75	1.75	2.81	281
PRODUCT EMPHASIS				
Plumbing Emphasis	.74	1.77	2.75	138
Industl PV&F Emphasis	1.17	2.15	3.87	41
Plumb + IPV&F Emphasis	.86	1.60	2.50	54
HVAC & Other Emphasis	-.11	1.45	2.70	45
NET SALES VOLUME				
Plumbing: Under $3MM Sls	.41	1.74	2.63	47
Plumbing: $3MM-$7MM Sls	.98	2.00	3.09	49
Plumbing: $7MM-$12MM Sls	.25	1.35	3.02	18
Plumbing: Over $12MM Sls	.93	1.65	2.48	24
Industl PV&F: Under $4MM Sls	.27	1.97	2.97	13
Industl PV&F: $4MM-$12MM Sls	1.15	1.53	3.89	15
Industl PV&F: Over $12MM Sls	1.91	2.53	4.06	13
Plumb + IPV&F: Under $3MM Sls	.59	1.54	2.44	17
Plumb + IPV&F: $3MM-$7MM Sls	.83	1.56	2.78	21
Plumb + IPV&F: Over $7MM Sls	1.05	1.77	3.21	16
HVAC & Other: Under $3MM Sls	-1.38	1.39	3.16	16
HVAC & Other: $3MM-$8MM Sls	.46	1.26	2.10	14
HVAC & Other: Over $8MM Sls	-.46	1.69	2.87	15
REGION				
New England	1.44	2.25	4.65	18
New York State	.00	2.08	2.95	15
New York City		-		
Middle Atlantic Region	.87	1.58	2.64	35
East Central Region	.10	1.49	2.53	43
Southern Region	1.10	1.70	2.51	32
Michigan	-4.46	.74	2.49	13
Chicago	-.14	1.03	2.81	13
Mid-America Region	.16	1.11	2.22	45
Louisiana & Texas	.91	1.83	3.67	20
Rocky Mountain Region	1.29	2.85	3.36	11
Pacific Northwest	-.18	1.56	2.02	7
Northern California	1.44	2.41	3.76	19
Pacific Southwest	.56	1.69	2.28	9

SECTION C

SAMPLE ASA SURVEY FORM AND DEFINITIONS OF THE PERFORMANCE MEASURES

This section consists of two major sub-sections which should be used together. First is a complete ASA Survey Form (keep in mind that the numbers appearing on the Form are hypothetical; they are neither "good" nor "bad"). From these sample company "711" data, each performance measure is defined in the second sub-section.

A Simple Approach to Understanding the Performance Measures

On page C-5, the definitions section of the report is arranged as follows:

ASA Report Page Number -- This is the page from Section B of the ASA Report where the more detailed results for the performance measure appear.

Performance Measure Order -- The order of these performance measures follows the order of the measures in Sections A & B.

Definition -- Each performance measure is defined in "words" so you'll know which line item from the Survey Form was used in a particular ratio calculation.

Sample Calculation -- Each performance measures has been calculated using the hypothetical company "711" data.

AMERICAN SUPPLY ASSOCIATION
1982 CONFIDENTIAL SURVEY FORM
(Based on 1981 Data)

Supply as much of the following data as you can. The more information that you provide, the more complete will be your PAR Report.

CLASSIFICATION DATA

I. Company Identification Code Number *ASAXX 711 / / / (MFI will assign)

II. The data on this Survey Form are for the 12 month period ending:

[5]+ ______

III. Number of locations (including headquarters) included in the data on this Survey Form: (Do not submit separate Survey Forms for branches.)

[6] 2

IV. Regional Identification: Check *one* of the boxes below:

			Regional Association Member	OR	Non-Regional Association Member in the Following States
	1)	☐	PHWNE		CT, ME, MA, NH, RI, VT
	2)	☐	NYSPHW		N.Y. (excluding NYC)
	3)	☐	JCA		Long Island & Metro NYC
	4)	☒	MAWA		DE, E. PA, MD, NJ, Wa. DC
	5)	☐	CWA		IN, OH, W. PA, WV
	6)	☐	SWA		AL, FL, GA, MS, NC, SC, TN, VA
[12]	7)	☐			Michigan
	8)	☐			Metro Chicago, Northern IL
	9)	☐	MASA		IA, KS, MN, MO, NE, ND, SD, Upper MI, WI
	10)	☐	WDA		LA & TX
	11)	☐			Rocky Mountain (CO, ID, MT, NM, UT, WY)
	12)	☐			Pacific NW (AK, OR, WA)
	13)	☐	NCSA		HI, N. CA, N. NV
	14)	☐	PSDA		AZ, S. CA, S. NV

V. A. [28] $ 5,200,000 Net Sales for Previous Year (Page 4, Line 11 for 1980.)

B. [81] # 42 Average Number of Employees During 1981. Please include all management personnel and all other employees. Count two half time people as one employee. For example, count a person who worked six months as 0.5 employee or one who worked three months as 0.25 employees

C. [17] 5 % Estimate the percent that Cash Sales represent as a % of Total Sales — Over the course of the year, what percentage of your total sales were made for cash?

+ Numbers in brackets are for MFI use.

AMERICAN SUPPLY ASSOCIATION
1982 CONFIDENTIAL SURVEY FORM
(Based on 1981 Data)

VI. Product Sales Mix (for the data reported on this Survey Form):

[34]	50	%	Plumbing Supplies & Equipment, Including Plumbing Pipe, Valves and Fittings
[29]	15	%	Hydronic and Warm Air Heating and Air Conditioning Supplies and Equipment
[30]	20	%	Industrial P-V-F (Industrial Pipe, Valves and Fittings)
[32]	5	%	Other Industrial Supplies and Equipment
[33]	10	%	Other (Please specify: ________________)
	100%		

VII. INVENTORY DATA:

Were you on a LIFO inventory valuation system during 1981?

[1] ☒ 2) Yes
☐ 1) No

VIII. COMPENSATION DATA:

Complete the two sections below if you can. It is not necessary to supply the requested data to effectively participate in the Survey. However, if you can supply these data, your PAR Report will be much more complete.

A.	[95]	$ 798,000	Total Payroll Expense for All Employees Last Year, including Owners (1981).
B.	[63]	$ 122,000	Total of Fringe Benefit Payments (Total Pension and Profit Sharing Payments plus FICA, Worker's Compensation, Unemployment, Group Insurance, etc.) for All Employees Last Year (including Owners)
C.	[100]	$ 920,000	Total Compensation (Sum of Lines A + B) for All Employees Last Year (1981).
D.	[55]	$ 60,000	Total Compensation (as above) of Highest Paid Employee (Including Owners).
E.	[56]	$ 40,000	Total Compensation (as above) of Second Highest Paid Employee (Including Owners).

IX. WAREHOUSE AND DIRECT SALES DATA:

A.	[101]	$ 500,000	Dollar Amount of Direct (Drop) Shipment Sales
B.	[102]	$ 4,500,000	Dollar Amount of Warehouse Sales
C.	[103]	$ 5,000,000	Total Sales (Sum of Lines A & B; should equal Line 11 on page 4.)
D.	[104]	$ 60,000	Dollar Amount of Gross Profit on Direct (Drop) Shipments
E.	[105]	$ 1,170,000	Dollar Amount of Gross Profit on Warehouse Sales (Report on FIFO basis.)
F.	[106]	$ 1,230,000	Total FIFO Gross Profit (Sum of Lines D & E; should equal Line 13 on page 4.)

AMERICAN SUPPLY ASSOCIATION

Complete as many of the lines below as possible. Naturally, the more data you can provide — the more complete your PAR will be.

LINE ITEM NUMBER	Items 1 thru 21 — except Item 2 — are for the end of your most recent fiscal year	FOR MFI USE	DOLLAR AMOUNT (Omit Cents)
1	Accounts & Notes Receivable, Trade, Net After Reserve	[31]	$ 680,000
2	Inventory (At Beginning of Fiscal Year; FIFO basis)	[4]	$ 1,120,000
3	Inventory (At End of Fiscal Year; FIFO basis)	[9]	$ 1,100,000
4	Total Current Assets (The amount on Line 4 includes the amounts on Lines 1 and 3 *plus* the dollar amount of "Cash" and "Other Current Assets" your firm has.)	[35]	$ 1,900,000
5	Total Assets (This is the total of the amount on Line 4 plus the "Fixed Assets" and any "Other Non-Current Assets" of your firm.) (FIFO basis; should equal Line 10.)	[40]	$ 2,400,000
6	Total Current Liabilities (Due in Less Than 1 Year)	[45]	$ 1,300,000
7	Total Long-Term Liabilities (Due in More Than 1 Year)	[46]	$ 100,000
8	Total Liabilities (Sum of Lines 6 and 7)	[48]	$ 1,400,000
9	Total Net Worth (or Equity — or Partnership Capital) (FIFO)*	[49]	$ 1,000,000
10	Total Liabilities & Net Worth (Sum of Lines 8 and 9; should be equal to the amount on Line 5.)	[50]	$ 2,400,000
11	Net Sales — Include direct shipments (if any). Deduct claims, returns and allowances but not cash discounts allowed on sales. Do not incl. sales taxes on sales made.	[3]	$ 5,000,000
12	Cost of Goods Sold — Include Inbound Transportation. Subtract purchase claims, returns and allowances but not cash discounts on purchases. (FIFO basis)**	[10]	$ 3,770,000
13	Gross Profit on Sales (Line 11 minus Line 12) (FIFO basis)	[11]	$ 1,230,000
14	Total Operating Expenses — Include selling, delivery, warehouse & shop, purchasing, occupancy & general & adm. exp. (Do not include interest or bad debt expense — see Line 18.)***	[15]	$ 1,120,000
15	Net Operating Profit (Line 13 minus Line 14) (FIFO)	[16]	$ 110,000
16	Non-Operating Income (Include cash discounts on purchases, interest earned and other income items not directly related to the primary operations of the business.)	[19]	$ 75,000
17	Total Income (Line 15 plus Line 16)	[18]	$ 185,000
18	Non-Operating Expenses (Include cash discounts allowed on sales, interest paid, bad debts written off and other non-operating expenses or losses not incl. elsewhere on the Form)	[22]	$ 175,000
19	Net Profit Before Taxes (Line 17 minus Line 18) (FIFO basis)	[25]	$ 10,000
20	Income Taxes (Federal, State & City Income) (as paid)	[26]	$ 2,000
21	Net Profit After Income Taxes (Line 19 minus Line 20) (FIFO)	[27]	$ 8,000

* If on LIFO, add your total LIFO Reserve to your book net worth to get your FIFO net worth.

** If on LIFO, subtract your "Annual additions to your LIFO reserves" from your cost of goods sold to obtain FIFO cost of goods sold.

*** Subchapter S firms and partnerships should be sure to allocate an appropriate management salary for Owner-Managers to operating expenses. If this is not done, before tax profits will be misleadingly high when compared to corporations that pay separate management salaries. To estimate the appropriate salary, consider what you would have to pay an outside manager or managers who had no equity interest in the business.

DEFINITIONS OF THE ASA REPORT PERFORMANCE MEASURES

ASA Report Section B Page Number	PERFORMANCE MEASURES	DEFINITION	SAMPLE CALCULATION (BASED ON PRECEEDING SAMPLE ASA SURVEY FORM)	
		OVERALL PERFORMANCE		
1	NET PROFIT AFTER TAXES TO NET WORTH (%)	$\frac{\text{NET INCOME AFTER TAXES}}{\text{NET WORTH}}$ X "100"	$\frac{\$8{,}000}{\$1{,}000{,}000}$ X 100	= .80%
2	TOTAL ASSETS TO NET WORTH (X)	$\frac{\text{TOTAL ASSETS}}{\text{TOTAL NET WORTH}}$	$\frac{\$2{,}400{,}000}{\$1{,}000{,}000}$	= 2.40X
3	NET PROFIT AFTER TAX TO TOTAL ASSETS (%)	$\frac{\text{NET INCOME AFTER TAXES}}{\text{TOTAL ASSETS}}$ x "100"	$\frac{\$8{,}000}{\$2{,}400{,}000}$ X 100	= .33%
4	TOTAL ASSET TURNOVER (X)	$\frac{\text{NET SALES}}{\text{TOTAL ASSETS}}$	$\frac{\$5{,}000{,}000}{\$2{,}400{,}000}$	= 2.08X
5	NET PROFIT AFTER TAXES TO NET SALES (%)	$\frac{\text{NET INCOME AFTER INCOME TAX}}{\text{NET SALES}}$ X "100"	$\frac{\$8{,}000}{\$5{,}000{,}000}$ X 100	= .16%
		SALES PERFORMANCE		
6	DOLLARS OF NET SALES ($000)	DOLLARS OF NET SALES/"1000"	$\frac{\$5{,}000{,}000}{1000}$	= $5000.00
7	PERCENT SALES CHANGE OVER PRIOR YEAR (%)	$\frac{\text{SURVEY YEAR NET SALES - PRIOR YEAR NET SALES}}{\text{PRIOR YEAR NET SALES}}$ X "100"	$\frac{\$5{,}000{,}000 - \$5{,}200{,}000}{\$5{,}200{,}000}$	= -3.85%
8	WAREHOUSE SALES AS % TOTAL SALES	$\frac{\text{WAREHOUSE SALES}}{\text{TOTAL SALES}}$ X "100"	$\frac{\$4{,}500{,}000}{\$5{,}000{,}000}$ X 100	= 90%
9	% PLUMBING SUPPLIES AND EQUIPMENT	DIRECT FROM SECTION VI DATA ON PAGE C-3		= 50%
10	% HEATING AND COOLING SUPPLIES & EQUIPMENT			= 15%
11	% INDUSTRIAL PIPES, VALVES AND FITTINGS			= 20%
12	% OTHER INDUSTRIAL SUPPLIES AND EQUIPMENT			= 5%
13	% OTHER PRODUCT SALES			= 10%

ASA Report Section B Page Number	PERFORMANCE MEASURES	DEFINITION	SAMPLE CALCULATION (BASED ON PRECEEDING SAMPLE ASA SURVEY FORM
		PROFITABILITY	
14	GROSS PROFIT TO NET SALES (%)	$\frac{\text{GROSS PROFIT ON SALES}}{\text{NET SALES}} \times \text{"100"}$	$\frac{\$1,230,000}{\$5,000,000} \times 100 = 24.60\%$
15	GROSS PROFIT % ON DIRECT SHIPMENTS (%)	$\frac{\text{GROSS PROFIT ON DIRECT SHIPMENTS}}{\text{DIRECT SALES}} \times \text{"100"}$	$\frac{\$60,000}{\$500,000} \times 100 = 12.00\%$
16	GROSS PROFIT % ON WAREHOUSE SALES (%)	$\frac{\text{GROSS PROFIT ON WAREHOUSE SALES}}{\text{WAREHOUSE SALES}} \times \text{"100"}$	$\frac{\$1,170,000}{\$4,500,000} \times 100 = 26.00\%$
		OPERATING EXPENSE CONTROL	
17	TOTAL OPERATING EXP AS A % OF NET SALES (%)	$\frac{\text{TOTAL OPERATING EXPENSES}}{\text{NET SALES}} \times \text{"100"}$	$\frac{\$1,120,000}{\$5,000,000} \times 100 = 22.40\%$
18	TOTAL OPERATING EXP AS A % OF GROSS PROFIT (%)	$\frac{\text{TOTAL OPERATING EXPENSES}}{\text{GROSS PROFIT}} \times \text{"100"}$	$\frac{\$1,120,000}{\$1,230,000} \times 100 = 91.06\%$
19	NON-PEOPLE EXPENSE AS A % OF NET SALES (%)	$\frac{\text{TOTAL OPERATING EXPS - TOTAL COMPENSATION}}{\text{NET SALES}} \times \text{"100"}$	$\frac{\$1,120,000 - \$920,000}{\$5,000,000} \times 100 = 4.00\%$
20	NON-PEOPLE EXPENSE AS % OF GROSS PROFIT (%)	$\frac{\text{TOTAL OPERATING EXPS- TOTAL COMPENSATION}}{\text{GROSS PROFIT}} \times \text{"100"}$	$\frac{\$1,120,000 - \$920,000}{\$1,230,000} = 16.26\%$
		PERSONNEL PRODUCTIVITY	
21	NET SALES PER EMPLOYEE ($000)	$\frac{\text{NET SALES}}{\text{NUMBER OF EMPLOYEES}} \div \text{"1000"}$	$\frac{\frac{\$5,000,000}{42}}{\text{"1000"}} = \$119.05$
22	GROSS PROFIT PER EMPLOYEE ($000)	$\frac{\text{GROSS PROFIT}}{\text{NUMBER OF EMPLOYEES}} \div \text{"1000"}$	$\frac{\frac{\$1,230,000}{42}}{\text{"1000"}} = \$29.29$
23	AVERAGE COMPENSATION PER EMPLOYEE ($000)	$\frac{\text{TOTAL COMPENSATION}}{\text{NUMBER OF EMPLOYEES}} \div \text{"1000"}$	$\frac{\frac{\$\ 920,000}{42}}{\text{"1000"}} = \$21.90$

ASA Report Section B Page Number	PERFORMANCE MEASURE	DEFINITION	SAMPLE CALCULATION (BASED ON PRECEEDING SAMPLE ASA SURVEY FORM)
24	TOTAL COMPENSATION AS % NET SALES (%)	$\frac{\text{TOTAL COMPENSATION}}{\text{NET SALES}} \times \text{"100"}$	$\frac{\$920,000}{\$5,000,000} \times 100 = 18.40\%$
25	TOTAL COMPENSATION AS % GROSS PROFIT (%)	$\frac{\text{TOTAL COMPENSATION}}{\text{TOTAL GROSS PROFIT}} \times \text{"100"}$	$\frac{\$920,000}{\$1,230,000} = 74.80\%$
		INVENTORY MANAGEMENT PERFORMANCE	
26	% OF FIRMS ON "LIFO"	LIFO? YES = 100% NO = --	YES = 100%
27	COST OF WAREHOUSE GOODS SOLD TO AVERAGE INVENTORY	$\frac{\text{WAREHOUSE SALES - GR PROFIT ON WHSE SLS}}{\left(\frac{\text{BEGINNING INVENTORY + ENDING INVENTORY}}{2}\right)}$	$\frac{\$4,500,000 - \$1,170,000}{\left(\frac{\$1,120,000 + \$1,100,000}{2}\right)} = 3.00X$
28	NO. OF DAYS AVERAGE INVENTORY CARRIED (DAYS)	$\frac{\left(\frac{\text{BEGINNING INVENTORY + ENDING INVENTORY}}{2}\right)}{(\text{WAREHOUSE SALES - WAREHOUSE GROSS PROFIT}) \div 365}$	$\frac{\left(\frac{\$1,120,000 + \$1,100,000}{2}\right)}{(\$4,500,000 - \$1,170,000) \div 365} = 121.67 \text{ DAYS}$
29	TOTAL COST OF GOODS SOLD TO AVERAGE INV (X)	$\frac{\text{COST OF GOODS SOLD}}{\left(\frac{\text{BEGINNING INVENTORY + ENDING INVENTORY}}{2}\right)}$	$\frac{\$3,770,000}{\left(\frac{\$1,120,000 + \$1,100,000}{2}\right)} = 3.40X$
30	WAREHOUSE GROSS MARGIN RETURN ON AVERAGE INV (%)	$\frac{\text{GROSS PROFIT ON WAREHOUSE SALES}}{\left(\frac{\text{BEGINNING INVENTORY + ENDING INVENTORY}}{2}\right)} \times \text{"100"}$	$\frac{\$1,170,000}{\left(\frac{\$1,120,000 + \$1,100,000}{2}\right)} \times 100 = 105.41\%$
31	TURN AND EARN PROFITABILITY INDEX (%)	COST OF WAREHOUSE GOODS SOLD TO AVERAGE INVENTORY (X) X GROSS PROFIT % ON WAREHOUSE SALES (%)	= 3.00x X 26.00% = 78.00%

ASA Report Section B Page Number	PERFORMANCE MEASURE	DEFINITION	SAMPLE CALCULATION (BASED ON PRECEEDING SAMPLE ASA SURVEY FORM)
		ACCOUNTS RECEIVABLE MANAGEMENT MEASURES	
32	AVERAGE COLLECTION PERIOD (DAYS)	$\frac{\text{ACCOUNTS \& NOTES RECEIVABLE (NET)}}{\text{CREDIT SALES} \div 365}$	$\frac{\$680,000}{\$4,750,000^{*} \div 365}$ $\frac{\$680,000}{\$13,014/\text{DAY}}$ = 52.25 DAYS
33	GROSS MARGIN RETURN ON RECEIVABLES (%)	$\frac{\text{GROSS MARGIN}}{\text{NET SALES}}$(%) X RECEIVABLE TURNOVER RATE	24.60% X 6.99X = 171.74%
		OVERALL CURRENT ASSET MANAGEMENT	
34	CURRENT ASSET TURNOVER (X)	$\frac{\text{NET SALES}}{\text{TOTAL CURRENT ASSETS}}$	$\frac{\$5,000,000}{\$1,900,000}$ = 2.63X
		FINANCIAL MANAGEMENT	
35	TOTAL DEBT TO NET WORTH (%)	$\frac{\text{TOTAL LIABILITIES}}{\text{TOTAL NET WORTH}}$ X "100"	$\frac{\$1,400,000}{\$1,000,000}$ X 100 = 140.00%
36	CURRENT DEBT TO NET WORTH (%)	$\frac{\text{TOTAL CURRENT LIABILITIES}}{\text{TOTAL NET WORTH}}$ X "100"	$\frac{\$1,300,000}{\$1,000,000}$ X 100 = 130.00%
37	CURRENT ASSETS MINUS INVENTORY/CURRENT DEBT (X)	$\frac{\text{TOTAL CURRENT ASSETS - INVENTORY}}{\text{TOTAL CURRENT LIABILITIES}}$	$\frac{\$1,900,000 - \$1,100,000}{\$1,300,000}$ = .62X

*Credit Sales = Net Sales X (1 - Cash Sales)
= $5,000,000 X (1 -.05)
= $4,750,000

ASA Report Section B Page Number	PERFORMANCE MEASURES	DEFINITION	SAMPLE CALCULATION (BASED ON PRECEEDING SAMPLE ASA SURVEY FORM)
		INCOME STATEMENT	
38	GROSS PROFIT AS % OF NET SALES (%)	$\frac{\text{GROSS PROFIT}}{\text{NET SALES}}$ X "100"	$\frac{\$1,230,000}{\$5,000,000}$ X 100 = 24.60%
39	TOTAL OPERATING EXPENSES AS % OF NET SALES (%)	$\frac{\text{TOTAL OPERATING EXPENSES}}{\text{NET SALES}}$ X "100"	$\frac{\$1,120,000}{\$5,000,000}$ X 100 = 22.40%
40	NET OPERATING PROFIT AS % OF NET SALES (%)	$\frac{\text{NET OPERATING PROFIT}}{\text{NET SALES}}$ X "100"	$\frac{\$110,000}{\$5,000,000}$ X 100 = 2.20%
41	NON-OPERATING INCOME AS % OF NET SALES (%)	$\frac{\text{NON-OPERATING INCOME}}{\text{NET SALES}}$ X "100"	$\frac{\$\ 75,000}{\$5,000,000}$ X 100 = 1.50%
42	TOTAL INCOME AS % OF NET SALES (%)	$\frac{\text{TOTAL INCOME}}{\text{NET SALES}}$ X "100"	$\frac{\$185,000}{\$5,000,000}$ X 100 = 3.70%
43	NON-OPERATING EXPENSES AS % OF NET SALES (%)	$\frac{\text{NON-OPERATING EXEPNSES}}{\text{NET SALES}}$ X "100"	$\frac{\$175,000}{\$5,000,000}$ X 100 = 3.50%
44	NET PROFIT BEFORE INCOME TAXES AS % OF NET SALES (%)	$\frac{\text{NET PROFIT BEFORE TAXES}}{\text{NET SALES}}$ X "100"	$\frac{\$10,000}{\$5,000,000}$ X 100 = .20%
45	INCOME TAXES AS % OF NET SALES (%)	$\frac{\text{INCOME TAXES}}{\text{NET SALES}}$ X "100"	$\frac{\$2,000}{\$5,000,000}$ X 100 = .04%
46	NET PROFIT AFTER TAXES AS % OF NET SALES (%)	$\frac{\text{NET PROFIT AFTER TAXES}}{\text{NET SALES}}$ X "100"	$\frac{\$8,000}{\$5,000,000}$ X 100 = .16%

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9/83

1983 OPERATING PERFORMANCE
# of the
P-H-C-P WHOLESALER INDUSTRY
(BASED ON 1982 FINANCIAL DATA)

PROFESSIONALLY PREPARED BY
INDUSTRY INSIGHTS, INC.
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for
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THE NATIONAL ASSOCIATION OF FULL-SERVICE WHOLESALERS
OF PLUMBING, HEATING, COOLING AND PIPING PRODUCTS

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by

The American Supply Association

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Bob Slakey, Chairman-Management Information Services Committee
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THE SURVEY TEAM

The 1983 ASA Annual Operating Performance Report was compiled, tabulated and analyzed by Industry Insights, Inc. in cooperation with the American Supply Association and the ASA Management Information Services Committee. Research support and project design assistance was provided by Management Horizons, Inc.

Industry Insights, headquartered in Worthington, Ohio, is a professional research and consulting firm providing management and marketing services to trade and professional associations and their members. The company specializes in industry operating surveys, compensation studies, educational programs and customized research services.

Management Horizons, Inc., also located in Worthington, Ohio, is a professional research and consulting firm specializing in wholesaling and retailing and consumer goods marketing. The company serves an international clientele of retailers, wholesalers and manufacturers as well as financial institutions, advertising agencies, brokerage houses and other service firms.

About This Report

This report reflects the continued efforts by The American Supply Association and ASA's Management Information Services Committee to provide the ASA membership with high quality, comprehensive information to improve business performance. It is the most complete, accurate and up-to-date data base of P-H-C-P wholesaler financial and operating information published anywhere.

This 1983 report (based on 1982 data) was prepared jointly by Industry Insights, Inc. and Management Horizons, Inc. of Worthington, Ohio. Confidential survey forms (refer to Appendix for sample) were sent to ASA members in late March and 318 completed and usable responses were received. This represented a slight increase from the 316 forms received for a similar survey in 1982 and was substantially greater than the 262 responses accounted for in 1981.

While this year's report contains all the same valuable information that was first introduced in the 1982 survey report, a number of "fine tuning" improvements have been made. In particular:

(1) An accounts receivable aging schedule has been included to indicate the typical P-H-C-P wholesaler company's experience in terms of accounts receivable accounts and dollars that are: current; 1-30 days past due; 31-60 days past due; 61-90 days past due; and over 90 days past due.

(2) An expanded income statement has been included which shows a number of individual expense categories as a percentage of sales, including: selling expense; delivery expense; warehouse expense; general and administrative expense; occupancy expense; and other operating expenses.

(3) Information showing "interest expense as a percentage of net sales," and the ratio "times interest earned" have been included.

(4) Invoice/transaction data has been compiled which shows: "billing lines per invoice"; "average invoice size"; and "average billing line."

(5) Sales mix data has been expanded to show the percentage of total sales accounted for by: direct (or drop shipment) sales; warehouse sales (counter); and warehouse sales (delivery).

(6) Financial ratios are presented for the "high profit" firms in each product emphasis group (based on before tax return on assets) to provide insight into why such firms were successful.

In addition to the above data enhancements, this year's report also includes an overall analysis of industry performance relative to U.S. economic conditions and an identification of two-year shifts that have occurred in industry performance based on ASA survey findings.

Moreover, all firms that participated in this year's survey received a free confidential Individual Company Report. This report presents a company's own ratios and data computed in a manner consistent with those appearing in the industry report, and displayed on a computer printout alongside the appropriate industry comparatives. For example, on any given line of this printout, a firm is able to view its own data along with industry averages for firm's of a comparative sales volume, type of business, geographic region, etc. Thus, the individual owner/manager is saved the time, effort and possible accountant expense of having manually to make the calculations.

ASA wishes to express gratitude to those members that participated in this year's survey and who were instrumental in making the study a success. In addition, ASA wishes to express gratitude to the members of the ASA Management Information Services Committee and to Bob Slakey, Committee Chairman for the time and effort and invaluable contributions that they made.

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P-H-C-P Wholesaling --
Overview of Industry Performance-1982

The last several years have been none too kind to the American businessman, but they have also been a humbling experience to the nation's economists. After having predicted a recovery for the last two years, it now seems that 1983 will provide some light out of the darkness.

While things bode well for 1983, this does not provide much consolation for P-H-C-P wholesalers who had serious problems in 1982.

1982 Sales Performance

According to figures published by the U.S. Department of Commerce, sales of wholesalers of hardware, plumbing, heating, air conditioning and refrigeration equipment and supplies decreased 10.5% in 1982.[1]

This was not a good year for durable goods wholesaling. Durables wholesalers showed a 10.2% sales decline compared to a 5.3% decrease for all merchant wholesalers. This is not uncharacteristic of sales patterns in recent years. Not since 1977 have hardware, plumbing and heating wholesalers grown faster than all wholesale trade as a group (see Exhibit 1).

ASA members experienced a 4.3% sales drop in 1982, not nearly as severe as that of the Census Bureau category (Exhibit 2). Among the specific types of P-H-C-P wholesalers, those who primarily serve the industrial P-V-F market exhibited an 11.7% sales decline while the other types showed a much lower decrease. In contrast, in 1981 the typical ASA firm's sales grew 0.9% with industrial P-V-F wholesalers displaying the highest growth.

The size of the company did not seem to affect sales performance in 1982. Among plumbing wholesalers the largest firms tended to fare better, among industrial P-V-F wholesalers the smaller ones experienced smaller sales drops and results among the sales volume categories of the other two types of wholesalers were mixed.

---

[1] This classification of businesses is the closest to P-H-C-P wholesaling for which the government regularly publishes sales data.

Exhibit 1

Growth of Hardware, Plumbing, Heating and Cooling vs. All Wholesale Sales

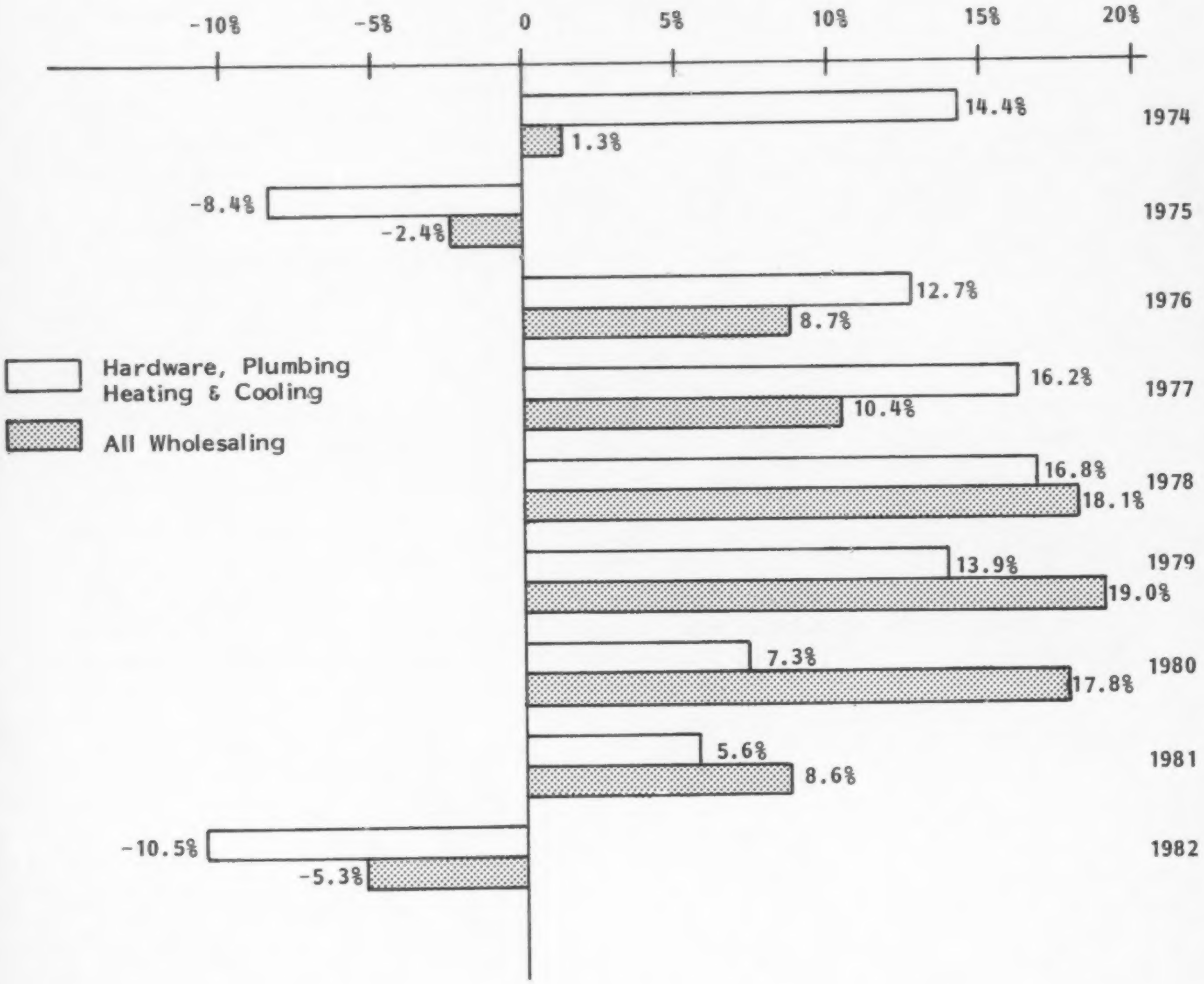


Exhibit 2

1982 Median Sales Growth

All P-H-C-P Wholesalers	(4.3%)
By Product Emphasis	
Plumbing Equipment and Supplies	(3.1%)
Industrial Pipe-Valves-Fittings (P-V-F)	(11.7)
Plumbing and Industrial P-V-F	(3.7)
HVAC and Other Emphasis	(3.7)
By Sales Volume	
Plumbing Equipment and Supples:	
Sales Less Than $3 Million	(3.5%)
Sales $3 Million to $7 Million	(3.6)
Sales $7 Million to $12 Million	(2.0)
Sales Over $12 Million	(2.6)
Industrial P-V-F:	
Sales Less Than $4 Million	(9.4%)
Sales $4 Million to $12 Million	(11.7)
Sales Over $12 Million	(12.7)
Plumbing and Industrial P-V-F:	
Sales Less Than $3 Million	(4.5%)
Sales $3 Million to $7 Million	(1.9)
Sales Over $7 Million	(8.7)
HVAC and Other Emphasis:	
Sales Less Than $3 Million	(4.5%)
Sales $3 Million to $8 Million	(1.0)
Sales Over $8 Million	(5.7)

1982 Profitability Performance

Just as 1982 was an adverse year in terms of sales growth, it was not a banner year for profitability either. Return on net worth for all ASA respondents was 3.8% in 1982, down from 7.8% the prior year (see Exhibit 3). Wholesalers with both a plumbing and industrial P-V-F orientation achieved the highest return on net worth (5.9%) and industrial P-V-F firms the lowest. Companies serving the industrial P-V-F market had the highest return on net worth in 1981.

Profitability by sales volume showed little recognizable pattern in 1982. Among plumbing wholesalers and HVAC and other emphasis wholesalers, the larger firms tended to be the most profitable. Conversely, the smallest industrial P-V-F companies were more profitable than the medium and larger size ones. The medium size plumbing and industrial P-V-F companies exhibited a higher return on net worth than both the large and small firms.

Exhibit 3

1982 Median Return on Net Worth

All P-H-C-P Wholesalers	3.8%
By Product Emphasis	
Plumbing Equipment and Supplies	3.9%
Industrial Pipe-Valves-Fittings (P-V-F)	1.9
Plumbing and Industrial P-V-F	5.9
HVAC and Other Emphasis	3.3
By Sales Volume	
Plumbing Equipment and Supples:	
Sales Less Than $3 Million	3.4%
Sales $3 Million to $7 Million	3.6
Sales $7 Million to $12 Million	3.8
Sales Over $12 Million	5.8
Industrial P-V-F:	
Sales Less Than $4 Million	6.4%
Sales $4 Million to $12 Million	0.3
Sales Over $12 Million	3.2
Plumbing and Industrial P-V-F:	
Sales Less Than $3 Million	4.1%
Sales $3 Million to $7 Million	8.4
Sales Over $7 Million	5.3
HVAC and Other Emphasis:	
Sales Less Than $3 Million	(0.7%)
Sales $3 Million to $8 Million	3.6
Sales Over $8 Million	5.2

P-H-C-P Wholesaling -- 1973-1982

Hardware, plumbing and heating wholesalers have not fared well over the entire 1973-1982 time period. Exhibit 4 shows that the industry not only trailed all wholesale and durables wholesale sales, but also ranked last among the major forms of durable goods distribution. It is evident that P-H-C-P wholesalers have had to operate in a difficult business environment during many of the past ten years.

Exhibit 4

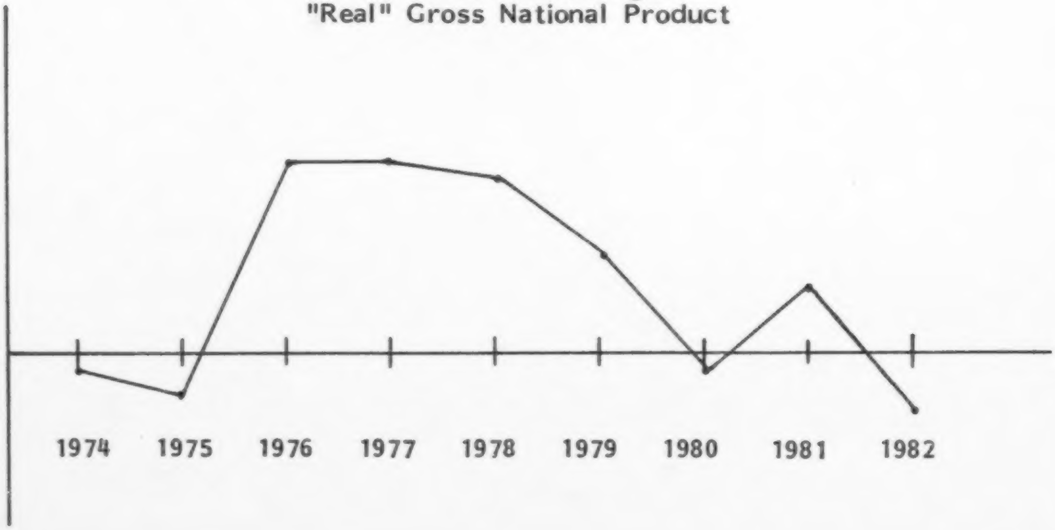
Annual Wholesale Sales Growth
1973-1982

All Wholesale Trade	10.8%
All Durables Wholesalers	9.5
Motor Vehicles and Automotive Equipment	10.8
Furniture and Home Furnishings	8.4
Electrical Goods	10.6
Machinery, Equipment and Supplies	10.9
Hardware, Plumbing and Heating Equipment	7.1

In 1981, many economists were predicting that 1982 was going to be a year of recovery for the U.S. economy. The year turned out to be the worst the economy has experienced in recent memory. "Real" Gross National Product (GNP), the overall measure of the nation's production of goods and services adjusted to exclude the effects of inflation, fell 1.7% in 1982. This is the worst decline in GNP in recent years, including the recession year of 1975 (see Exhibit 5). The economy has not experienced healthy growth since 1978.

Exhibit 5

Annual Percent Change in
"Real" Gross National Product



P-H-C-P wholesale sales, and for that matter, wholesalers as a group, have followed a growth pattern similar to GNP but much more pronounced. The good years have generally been better than the economy as a whole and the bad ones have been worse.

The real situation cannot be viewed adequately without removing the distortion of inflation. "Real," or deflated sales changes for P-H-C-P wholesalers for the years 1974 to 1982 appear in Exhibit 6. It is easy to see that physical volume in the industry has declined during the past three years, not just in 1982. The years 1976 to 1979 were reasonably good ones, and the 1974-1975 recession period becomes very evident as well.

It is important to deflate industry sales because the rate of inflation varies dramatically from year to year. Exhibit 7 presents changes in the producer price index for P-H-C-P products for the years 1973 to 1982. Notice that despite a 14.4% sales increase for the industry in 1974, a 15.4% increase in inflation that year resulted in a "real" sales decrease. Inflation in the industry, as well as the economy, has been moderating during the past several years.

Exhibit 6

Growth of PHCP Wholesale Sales
1974-1982

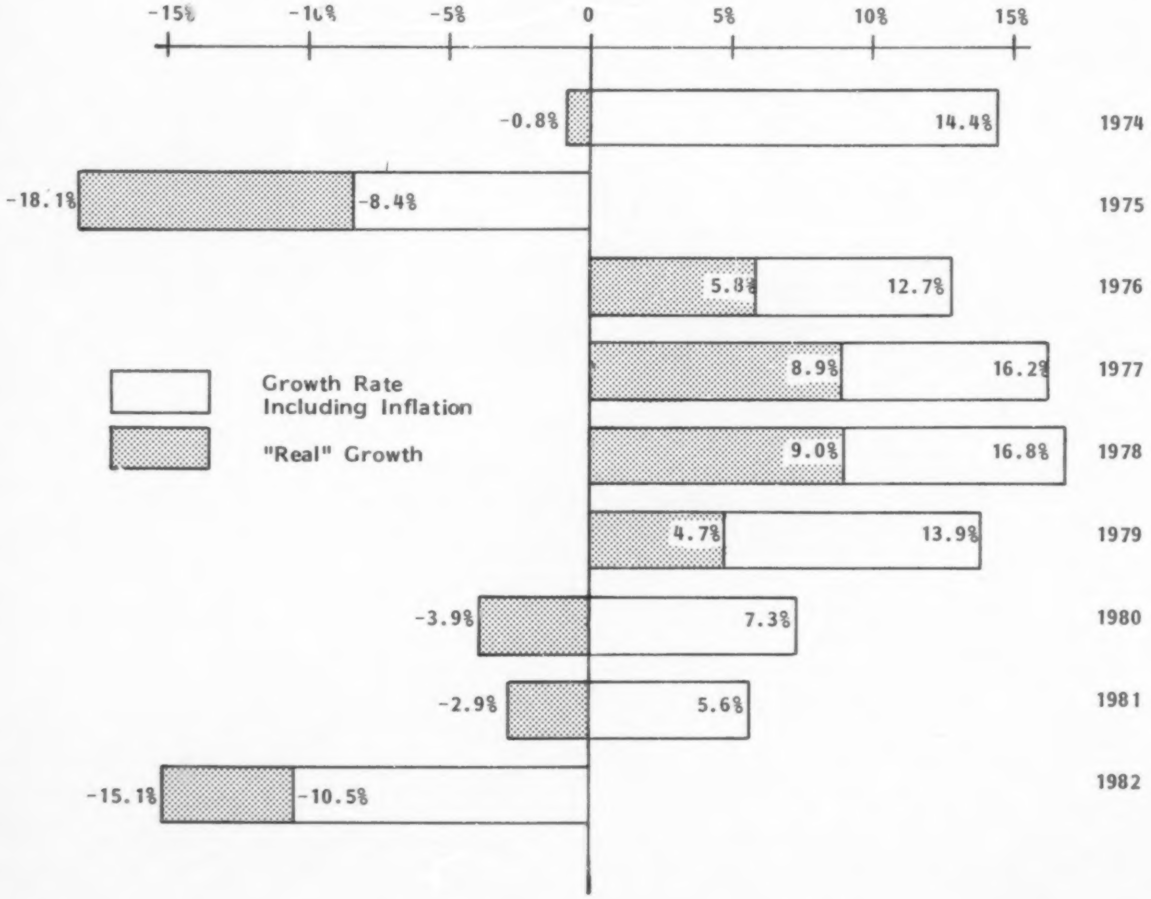
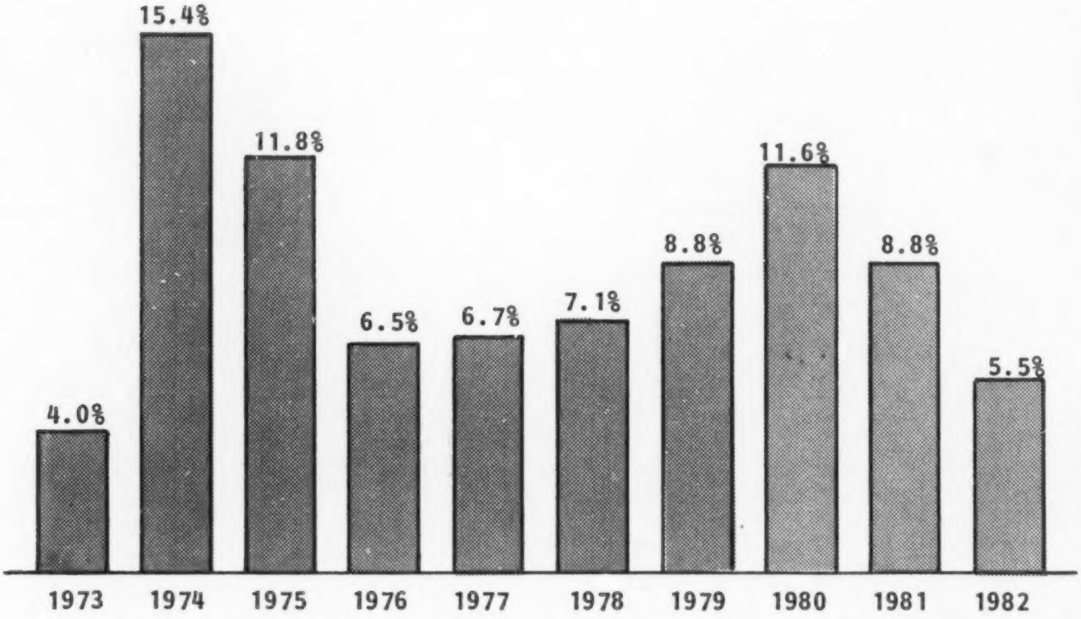


Exhibit 7

Producer Price Index
PHCP Products*



* The P-H-C-P price index is a composite index constructed by Industry Insights from producer price indexes for hardware, plumbing, heating, and air conditioning products.

How To Use This Report

The 1983 ASA Operating Performance Report of the P-H-C-P Wholesaler Industry has been designed to help P-H-C-P wholesalers evaluate their own performance relative to that of similar companies in order to identify improvement opportunities. The statistics in this report represent broad performance "yardsticks" against which a company's performance can be measured.

Using this information P-H-C-P wholesalers can compare their own firm's financial and operating performance with the industry as a whole; with firms having the same areas of product emphasis; with firms of a comparable sales volume and/or geographic region; and with the highest profit firms. Spotting significant differences between your own firm's performance and the industry composites can be the first step toward improving performance. Keep in mind, however, that deviations from industry norms do not automatically call for some action on your part. The most important thing to do is to be able to explain why your firm experienced significant deviations from the "typical" wholesaler in the industry.

In order to obtain maximum advantage from the information contained in this report while at the same time minimizing your analysis time and effort, we recommend you follow the step-by-step approach outlined below.

Step 1: Collect the Necessary Company Data

The first step in using this report is to gather all your financial and operating results for your 1982 fiscal year. Most of the needed data can be obtained from your company accounting records, but a small amount will have to be extracted from other sources, such as personnel files, advertising records and the like. If you participated in the 1983 P-H-C-P wholesaler Operating Performance Survey, this step has probably already been done.

Step 2: Calculate the Ratios

The second step is to compute all of the various performance measures for your firm that are included in this report using the data gathered in Step 1. It is extremely important to calculate these ratios using the same formulas which were used to produce the ratios in this report. These formulas, along with sample calculations of each measure, appear in the section of this report entitled, "Ratio Definitions and Sample Calculations," located in the Appendix.

Companies which participated in the survey and filled the survey form out completely received a confidential computer printout of their own firm's financial ratios calculated and formatted in a manner that is consistent with the information in this report. Thus, for those firms, Step 2 has already been completed for them in an accurate, time saving manner. P-H-C-P wholesalers that did not participate in the 1983 survey should strongly consider doing so in 1984.

Step 3: Compare the Results

Next, compare your company's performance with the survey results of other firms in the industry. As you do so, several points should be recognized:

(1) A deviation between your firm's figures (for any performance measure) and numbers in the report is not necessarily good or bad. It merely indicates that additional analysis may be required. As a rule, the larger the difference, the greater the need for further investigation.

(2) In situations where large deviations do exist, it may be helpful to go back and calculate the same performance measure over the past several years to identify any trends that may exist.

(3) The information in this report should be used as guidelines rather than absolute standards. Since firms differ as to their product emphasis strategy, location, size, and other factors, any two firms can be successful, yet have very different experiences with regard to certain performance measures.

Understanding the Data

In order to use the information in this report to maximum advantage, it is important to understand what the numbers mean and how to interpret them.

How The Tables Are Organized -- The tables in this report are organized to include a number of important financial ratios for each relevant "grouping" of similar firms. In particular, the major "groupings" used include:

- All Reporting Firms -- refers to the results of all firms responding to the survey.
- Product Emphasis Group:
  - -- Plumbing Supplies & Equipment Firms -- those firms that derive over 50% of sales from plumbing products.
  - -- Industrial P-V-F Firms -- those firms that derive over 50% of sales from Industrial P-V-F products.
  - -- Plumbing Supplies & Equipment and Industrial P-V-F Firms -- those firms that derive more than 50% of sales from plumbing and industrial P-V-F products combined but less than 50% from either category alone.
  - -- HVAC & Other Emphasis Firms -- those firms that cannot be classified in any of the above three groups; or those companies that derive less than 50% of sales from combined plumbing supplies and equipment, and industrial P-V-F.

- Product Emphasis Group by Sales Volume Size:

  - -- Plumbing Supplies and Equipment Firms with Sales Under $3 Million
  - -- Plumbing Supplies and Equipment Firms with Sales $3-7 Million
  - -- Plumbing Supplies and Equipment Firms with Sales $7-12 Million
  - -- Plumbing Supplies and Equipment Firms with Sales Over $12 Million

  - -- Industrial P-V-F Firms with Sales Under $4 Million
  - -- Industrial P-V-F Firms with Sales $4-12 Million
  - -- Industrial P-V-F Firms with Sales Over $12 Million

  - -- Plumbing Supplies & Equipment and Industrial P-V-F Firms with Sales Under $3 Million
  - -- Plumbing Supplies & Equipment and Industrial P-V-F Firms with Sales $3-7 Million
  - -- Plumbing Supplies & Equipment and Industrial P-V-F Firms with Sales Over $7 Million

  - -- HVAC & Other Emphasis Firms with Sales Under $3 Million
  - -- HVAC & Other Emphasis Firms with Sales $3-8 Million
  - -- HVAC & Other Emphasis Firms with Sales Over $8 Million

- By Geographic Region:

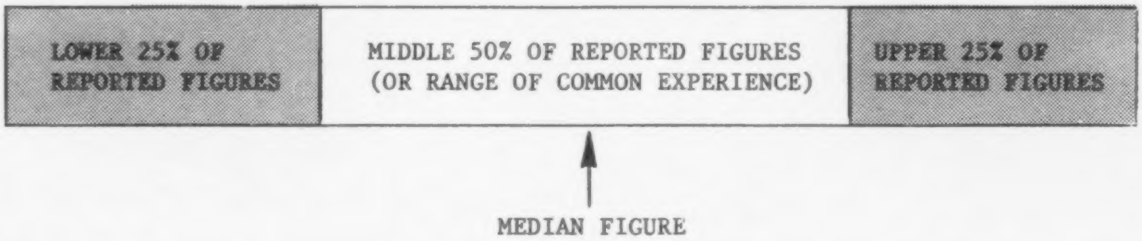
  - -- New England (CT,ME,MA,NH,RI,VT)
  - -- New York (excluding NYC)
  - -- Long Island and Metro NYC (however, data was insufficient to include ratios in this report)
  - -- Middle Atlantic (DE,Eastern PA,MD,NJ,Wa. DC)
  - -- East Central (IN,OH,Western PA, WV)
  - -- Southern (AL,FL,GA,KY,MS,NC,SC,TN,VA)
  - -- Michigan (excluding Upper MI)
  - -- Metro Chicago and Northern IL
  - -- Mid-America (IA,KS,MN,MO,NE,ND,SD, Upper MI,WI)
  - -- Louisiana, Texas, New Mexico, Oklahoma and Arkansas
  - -- Rocky Mountain (CO,ID,MT,UT,WY)
  - -- Pacific Northwest (AK,OR,WA)
  - -- Northern California, Northern Nevada, and Hawaii
  - -- Pacific Southwest (AZ, Southern CA, Southern NV)

- By Product Emphasis Group by High Profit Firms:

  - -- High Profit Plumbing Supplies & Equipment Firms
  - -- High Profit Industrial P-V-F Firms
  - -- High Profit Plumbing Supplies & Equipment and Industrial P-V-F Firms
  - -- High Profit HVAC & Other Emphasis Firms

Interpreting the Numbers -- Most of the performance indicators included in this study are reported on the basis of medians rather than arithmetical averages or means. Unlike the mean, the median is not distorted by a few unusually high or low values that may exist in the sample due to special circumstances. The "median" figure represents the mid-point of the figures for a particular measure, with one-half of the firms reporting figures above it and one-half below. Each median was independently selected from its own array of figures. As a result, component figures of an item may not necessarily total 100 percent and normal mathematical relationships do not always exist. For example, the median net sales minus the median cost of goods sold may not necessarily equal the median gross margin percent.

Also included for most of the performance indicators is the "Range of Common Experience." This represents the experience of the middle 50 percent of all firms in the data grouping when items are arranged numerically from lowest to highest. In other words, the upper and lower limits on the "Range of Common Experience" are simply the upper and lower quartiles respectively for that ratio.


LOWER 25% OF REPORTED FIGURES
MIDDLE 50% OF REPORTED FIGURES (OR RANGE OF COMMON EXPERIENCE)
UPPER 25% OF REPORTED FIGURES
MEDIAN FIGURE

Further insights into how to use this report are included in the Appendix in the section entitled: "Ratio Definitions and Sample Calculations." An important point to keep in mind when using this report is that even relatively simple analysis of your company's own financials using the industry data for comparison, can yield important insights into your business. You do not have to be a financial expert to benefit from this information.

1983 ASA OPERATING
PERFORMANCE SURVEY
DETAILED RESULTS

Executive Summary of Survey Results

The detailed results of the 1983 ASA Operating Performance Survey of the P-H-C-P Wholesaler Industry (pages 33 through 151 of this report) provide an in-depth view of performance levels, financial position and operating characteristics experienced in 1982. This section of the report summarizes and highlights some of the important findings of the overall study. In particular, the information which appears on the following few pages has been abstracted from the much more comprehensive set of statistics which follow in the report. Those performance measures contained in this section of the report are good overall gauges of P-H-C-P wholesaler experiences in 1982.

1982 vs. 1981 Performance Comparison

When the content of ASA's Operating Performance Report of the P-H-C-P Wholesaler Industry was substantially changed beginning with the 1982 report (of 1981 data), one of the objectives was to report industry trend data on a regular basis. While only two years of expanded statistics are now available, it is possible to identify some interesting shifts that have occurred in P-H-C-P wholesaler performance between 1981 and 1982. Over time, such shifts will be monitored in order to identify significant industry trends at an early stage of development.

Profitability -- Probably the best overall barometer of P-H-C-P wholesaler performance is provided by the Strategic Profit Model, which is shown in Exhibit 8 for 1982 versus 1981. Essentially, the Strategic Profit Model summarizes financial performance by highlighting its key components: margin management, asset management and financial policy management. As shown in Exhibit 8, return on net worth, which is the ultimate measure of a firm's profitability, is determined by the combination of each of the three "profit pathways."

- Profit Margin refers to net profit (after tax) divided by net sales. It is a good measure of margin management because in order to achieve an acceptable net profit margin, a company must earn an acceptable gross margin while keeping expenses in line.
- Assset Turnover depicts net sales divided by total assets. This is an overall measure of asset management, showing how many dollars in sales are being generated by each dollar of assets employed in running the business.
- Financial Leverage is derived from total assets divided by net worth. Financial leverage is nothing more than the degree to which debt is used to finance the business as opposed to net worth (owner's investment).

Since the above three components multiply together to yield return on net worth, increases in any of these three components increases the overall profitability of the firm. Unfortunately, the opposite is also true.

Based upon the various profit models shown in Exhibit 8, several general statements are noteworthy:

- For each of the four different types of product emphasis groupings for P-H-C-P wholesalers shown in Exhibit 8, 1982 represented a less profitable year than 1981. In other words, return on net worth (after tax) was lower in 1982 than in 1981 for every type of company shown.

- In 1982, the group of firms emphasizing "Plumbing Supplies & Equipment and Industrial P-V-F" tended to have the highest return on net worth performance (5.9%) among the four groupings listed. To a large extent, such performance was mostly due to the higher profit margins experienced by the "Plumbing Supplies & Equipment and Industrial P-V-F" group as compared to the other groups.

- Asset turnover performance was fairly consistent among the four groups between 1981 and 1982, as was financial leverage.

Productivity -- In addition to profitability, another important gauge of performance is productivity. In most cases, productivity and profitability are closely related. That is, firms that tend to be the most productive also tend to be the most profitable.

Exhibit 9 presents a number of summary performance measures for P-H-C-P wholesalers in 1982 versus 1981. Included are several measures for personnel productivity as well as several inventory management or inventory productivity measures. In particular, the following observations can be made relative to P-H-C-P productivity:

- In the aggregate, net sales per employee (a measure of personnel productivity) declined in 1982 as compared to 1981. This is indicated by the "All Firms" grouping which shows only $152,258 in net sales per employee in 1982 versus $162,040 in 1981.

- Payroll and fringe benefits expense as a percentage of net sales tended to be higher for most of the product emphasis groups in 1982 than in 1981.

- Inventory productivity also declined in 1982 versus 1981 for the typical P-H-C-P wholesaler. This is indicated by the decline in "warehouse gross margin return on average inventory" that was experienced by every one of the groups shown in Exhibit 9.

  "Warehouse gross margin return on inventory" provides the best overall measure of inventory productivity. Essentially, it is a return on investment measure which is derived by dividing gross profit on warehouse sales by average inventory. "Warehouse gross margin return on inventory" involves two components of inventory productivity: gross margin and inventory turnover. An increase in either will improve "warehouse gross margin return on inventory." Likewise, a decline in either will have the opposite effect.

  Interestingly, while gross margin on sales held steady in 1982 versus 1981, inventory turnover (as measured by "total cost of goods sold to average inventory) declined for the "All Firms" group (3.1 times in 1982 versus 3.8 times in 1981). This largely accounted for the decline in overall inventory productivity.

Exhibit 8

P-H-C-P WHOLESALER TWO-YEAR STRATEGIC PROFIT MODEL RATIOS

1982 vs. 1981

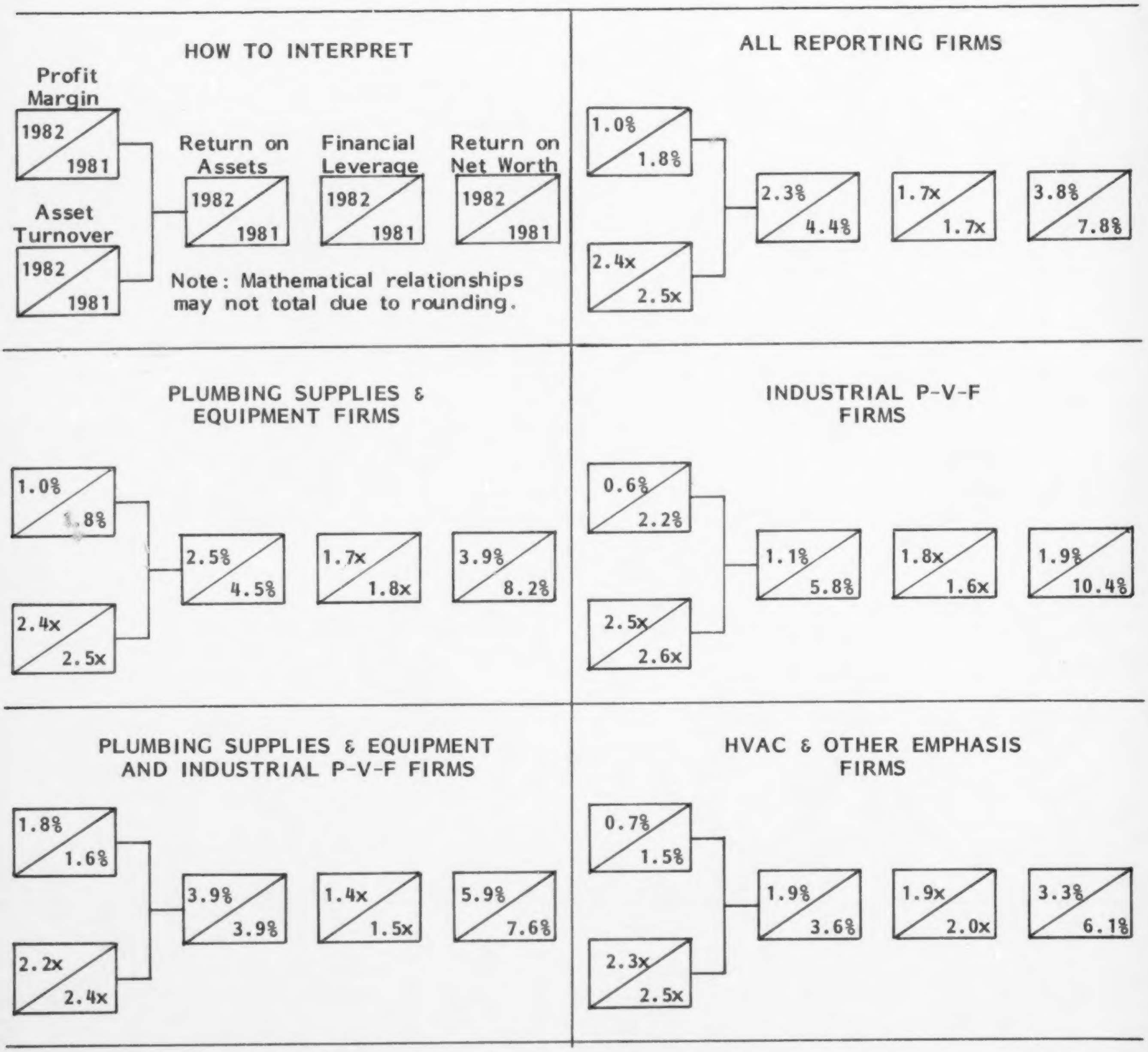


Exhibit 9

P-H-C-P WHOLESALER TWO-YEAR SUMMARY PERFORMANCE COMPARISON
1982 vs. 1981

	Plumbing Supplies & Equipment Firms		Industrial P-V-F Firms		Plumbing Supplies & Equipment and Industrial P-V-F Firms		HVAC & Other Emphasis Firms		All Reporting Firms	
	1982	1981	1982	1981	1982	1981	1982	1981	1982	1981
Financial Management										
Total Debt to Net Worth	68.9%	78.1%	83.3%	64.2%	42.5%	52.3%	92.7%	102.1%	68.3%	74.1%
Current Assets Minus Inventory to Current Debt	1.3x	1.1x	1.2x	1.0x	1.5x	1.4x	1.1x	1.0x	1.3x	1.1x
Personnel Productivity										
Net Sales per Employee	$158,548	$162,470	$201,377	$198,150	$152,807	$157,900	$135,715	$133,470	$152,258	$162,040
Payroll and Fringe Benefits to Net Sales	14.1%	13.8%	13.9%	12.9%	15.3%	14.2%	15.1%	15.6%	14.5%	14.1%
Inventory Management										
Gross Margin on Sales	25.0%	24.4%	23.4%	25.1%	25.2%	24.5%	26.1%	26.1%	25.0%	24.7%
Total Cost of Goods Sold to Average Inventory	3.7x	4.2x	3.7x	3.4x	3.6x	3.9x	3.4x	3.5x	3.1x	3.8x
Warehouse Gross Margin Return on Average Inventory	113%	127%	95%	111%	106%	114%	111%	118%	109%	119%
Accounts Receivable										
Average Collection Period (Days)	50	44	40	40	46	47	50	43	47	44
Expense Management										
Total Operating Expenses as a Percent of Sales	22.7%	21.6%	22.0%	20.6%	24.7%	21.2%	25.1%	23.5%	23.2%	21.7%
Sales Performance										
Percent Sales Change from Prior Year	-3.1%	0.5%	-11.7%	3.6%	-3.7%	2.8%	-3.7%	-0.8%	-4.3%	0.9%

Accounts Receivable -- Another important measure shown in Exhibit 9 is "average collection period," which shows how long money in the business is tied up in credit sales. This figure actually represents the number of days between a sale and cash payment of the average account.

For the typical P-H-C-P wholesaler in 1982 "average collection period" was about 47 days, which was a slight increase from the 44 days recorded by the "All Firms" group in 1981.

As a further insight into receivables management, a new feature in this year's ASA Operating Performance Report is accounts receivable aging information which shows the percentage of total receivable accounts and the percentage of total receivable dollars that are:

- Current
- 1-30 days past due
- 31-60 days past due
- 61-90 days past due
- Over 90 days past due

Exhibit 10 summarizes some of the accounts receivable aging information that is contained in more detail throughout the statistical tables portion of this report. As seen in Exhibit 10, the typical P-H-C-P wholesaler has somewhere around 60% of total accounts receivable dollars that are current and the remainder are in varying degrees of being past due.

Financial Management -- Financial management typically has two primary elements: leverage and liquidity. Leverage refers to the use of creditors funds (debt) to finance a portion of the business. One commonly used measure of leverage is "total debt to net worth." This indicates the relative proportion of debt versus equity financing. As shown in Exhibit 9, most of the groups of P-H-C-P wholesalers tended to rely slightly less on debt financing in 1982 as compared to 1981.

Liquidity simply refers to your firm's ability to pay its bills. It measures the short term financial strength of the firm. This is oftentimes measured by the "quick" or "acid-test" ratio (defined as current assets minus inventory divided by current liability). This ratio, by excluding inventory, considers only those assets which can be rapidly converted to cash and whose values are relatively certain. Exhibit 9 shows that liquidity tended to increase slightly for the typical P-H-C-P wholesaler from 1981 to 1982 as the quick ratio for the "All Firms" group went from 1.1 times to 1.3 times. The "Plumbing Supplies & Equipment and Industrial P-V-F" group tended to have the highest liquidity in 1982 with a 1.5 times quick ratio.

Expense Management -- Included in this year's ASA Operating Performance Report is an expanded amount of expense detail as compared to the report in past years. This is included in the various percentage income statements included in the detailed statistical tables of this report. Exhibit 9, however, provides an overall measure of total operating expenses as a percentage of sales. This shows that operating expenses relative to the sales volume generated increased in 1982 over 1981 for every one of the company groups shown. This situation is the primary reason for the widespread decline in profit margins that was experienced by industry firms in 1982.

Sales Performance -- Another important barometer of industry performance shown in Exhibit 9 is the "percent sales change from the prior year." Once again, the dismal situation of 1982 is highlighted. The "All Firms" group reported a 4.3% sales decline, and every one of the groups shown also reported declines. "Industrial P-V-F" firms were especially hard hit by the recession, showing a whopping 11.7% drop in 1982 sales versus 1981 sales.

Additional insights into industry sales in 1982 are provided by Exhibit 11 which shows the mix of sales by type of sales transaction as well as the product mix of sales. As expected, most sales (approximately 60%) are warehouse delivery sales while direct or drop shipment sales represent less than 10% of the total for the industry. Also, by definition, the product mix of sales varies greatly by type of product emphasis group.

High Profit Firms

Further insight into industry performance is evident from the statistics included in this report for "high profit" firms. Essentially, this refers to a special data grouping of the most profitable companies (on the basis of before tax return on assets). Since high profitability is a primary goal of most P-H-C-P wholesalers, it is extremely critical to understand what characterizes profitable firms. Exhibit 12 summarizes some of the key indicators.

In looking at Exhibit 12, keep in mind that not all highly profitable companies will exhibit the characteristics described below. In fact, P-H-C-P wholesalers should use discretion in making changes in operations which are already quite profitable.

In general, Exhibit 12 shows that in comparison to typical companies in the industry, the high profit firms exhibited:

- Much higher profit margins (profits after tax to net sales).
- Lower operating expenses as a percentage of sales.
- A much lower reliance on debt financing relative to equity financing (as indicated by the "debt to net worth" ratio, which shows that debt is a lower percentage of net worth for the high profit firms).
- Higher sales per employee for every group shown in Exhibit 12.
- Better inventory productivity. "Warehouse gross margin return on average inventory" (i.e., warehouse GMROI) was consistently higher for the high profit firms among the groups shown.

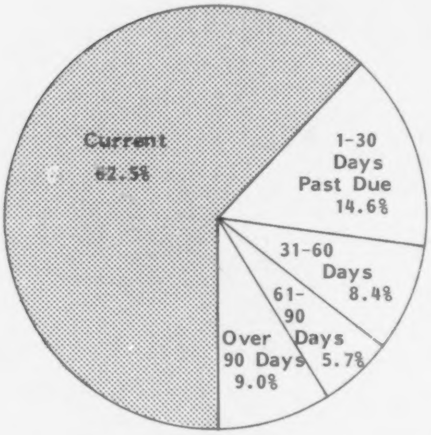
- An average collection period that was similar to that experienced by the rest of the industry.

- A somewhat better "percent sales change from prior year" than the industry in general. However, even most of the high profit firms experienced declining sales in 1982 versus 1981.

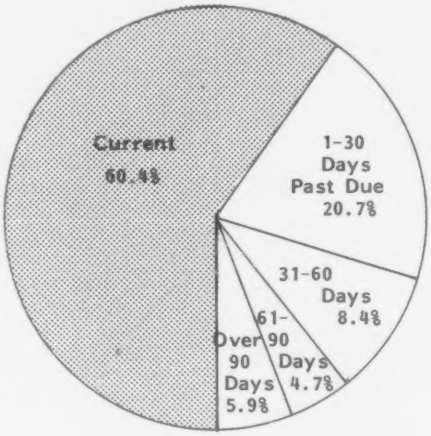
Exhibit 10

ACCOUNTS RECEIVABLE AGING -- 1982

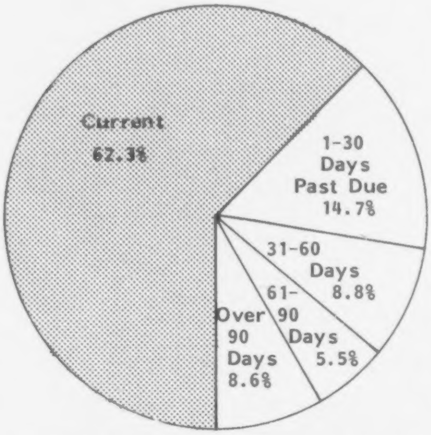
(Percentage of Accounts Receivable Dollars Current and Past Due)



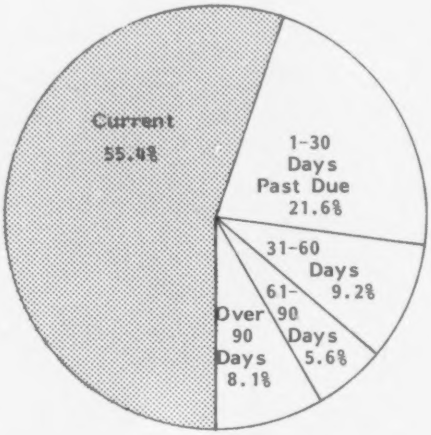
PLUMBING SUPPLIES & EQUIPMENT FIRMS



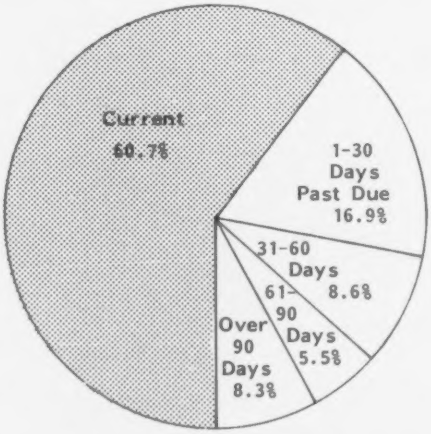
INDUSTRIAL P-V-F FIRMS



PLUMBING SUPPLIES & EQUIPMENT AND INDUSTRIAL P-V-F FIRMS



HVAC & OTHER EMPHASIS FIRMS

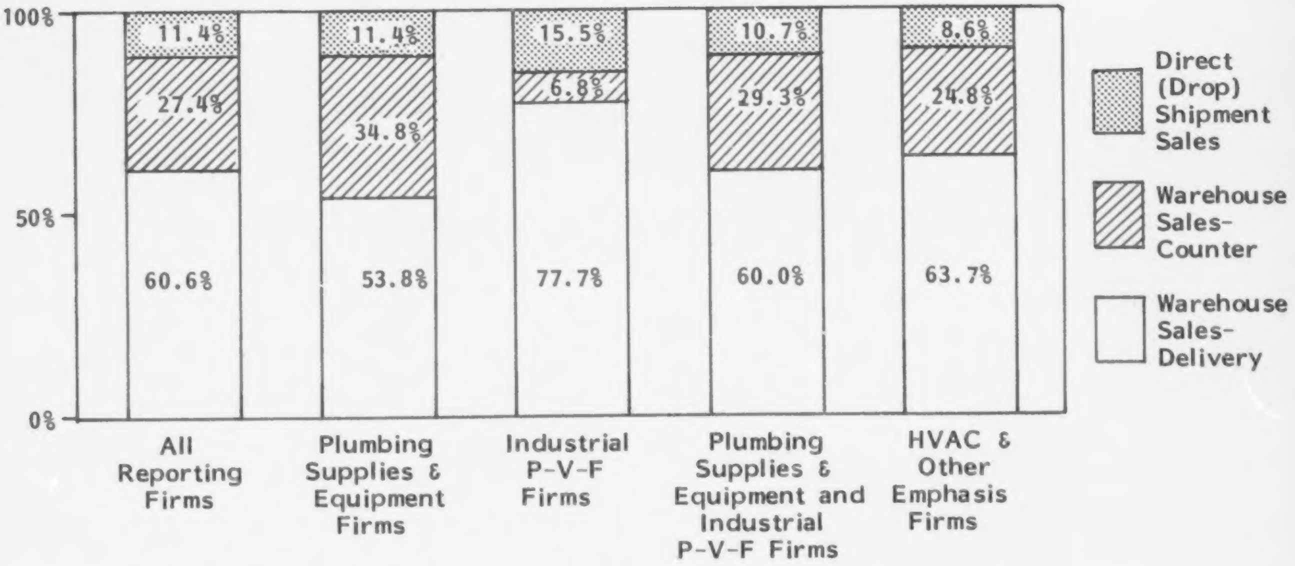


ALL REPORTING FIRMS

Exhibit 11

ANALYSIS OF 1982 P-H-C-P WHOLESALER SALES

SALES MIX -- Percent of Total Sales



PRODUCT MIX -- Percent of Total Sales

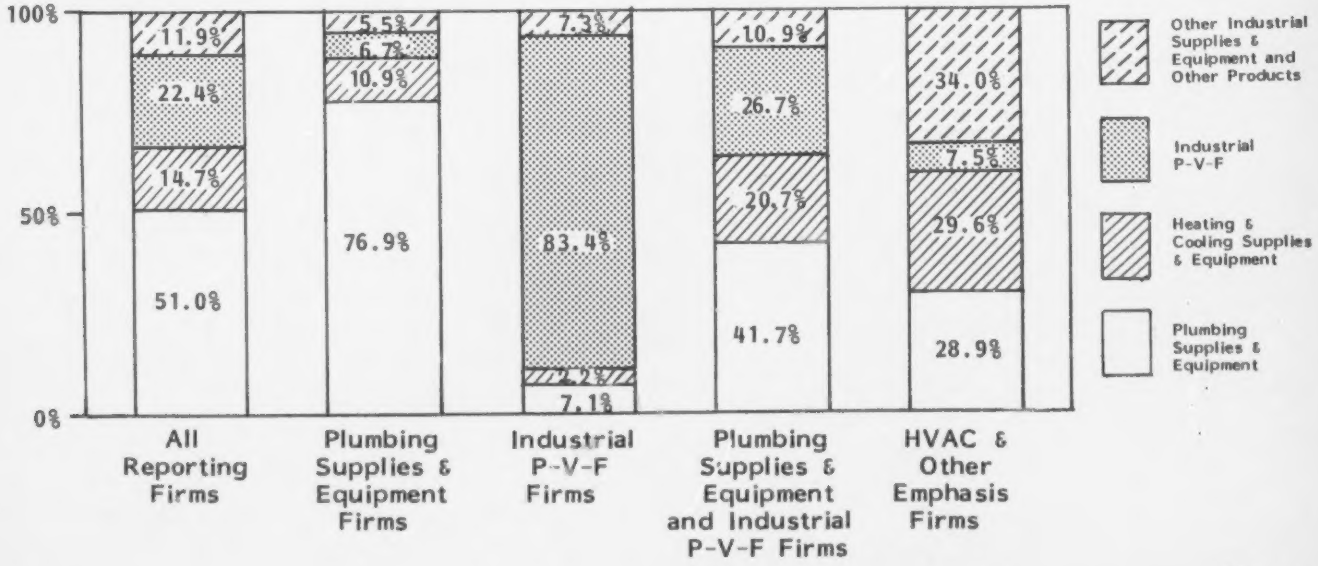


Exhibit 12

SUMMARY PERFORMANCE COMPARISON -- HIGH PROFIT FIRMS VS. "TYPICAL FIRM P-H-C-P WHOLESALERS 1982

	Plumbing Supplies & Equipment Firms		Industrial P-V-F Firms		Plumbing Supplies & Equipment and Industrial P-V-F Firms		HVAC & Other Emphasis Firms		All Reporting Firms
	Typical	High Profit	Typical	High Profit	Typical	High Profit	Typical	High Profit	
Profitability									
Net Profit (After Tax) to Total Assets	2.52%	5.39%	1.13%	3.98%	3.86%	6.18%	1.85%	4.03%	2.32%
Net Profit (After Tax) to Net Worth	3.91%	9.43%	1.92%	8.94%	5.91%	10.72%	3.26%	7.15%	3.84%
Net Profit (After Tax) to Net Sales	1.00%	2.30%	0.60%	1.50%	1.80%	2.40%	0.70%	1.90%	1.00%
Asset and Financial Management									
Net Sales to Total Assets	2.40x	2.36x	2.51x	2.52x	2.16x	2.60x	2.30x	2.48x	2.38x
Total Debt to Net Worth	68.9%	51.8%	83.3%	58.7%	42.5%	41.9%	92.7%	60.8%	68.3%
Current Assets to Current Debt	2.93x	3.32x	2.52x	3.27x	3.34x	3.20x	2.79x	3.11x	2.96x
Personnel Productivity									
Net Sales per Employee	$158,548	$173,963	$201,377	$212,756	$152,807	$175,575	$135,715	$145,109	$152,258
Payroll and Fringe Benefits to Net Sales	14.1%	13.4%	13.9%	13.2%	15.3%	14.1%	15.1%	14.5%	14.5%
Inventory Management									
Gross Margin on Net Sales	25.0%	26.2%	23.4%	23.8%	25.2%	24.9%	26.1%	26.5%	25.0%
Gross Margin on Direct Shipments	10.5%	10.0%	11.8%	12.5%	12.0%	12.0%	14.3%	14.3%	11.6%
Gross Margin on Warehouse Sales	25.4%	26.3%	26.0%	26.8%	27.4%	26.4%	26.7%	27.2%	26.1%
Total Cost of Goods Sold to Average Inventory	3.74x	3.68x	3.65x	3.65x	3.56x	5.03x	3.40x	3.94x	3.12x
Warehouse Gross Margin Return on Average Inventory	113%	130%	95%	98%	106%	125%	111%	145%	109%
Accounts Receivable									
Average Collection Period (Days)	50	51	40	40	46	48	50	51	47
Operating Expenses (% of Net Sales)									
Selling Expenses	5.6%	5.4%	6.5%	5.9%	6.0%	5.4%	6.9%	6.0%	6.0%
Delivery Expenses	1.9%	1.8%	1.9%	1.5%	1.8%	1.0%	1.9%	1.7%	1.9%
Warehouse Expenses	2.7%	2.5%	2.1%	1.9%	2.8%	2.5%	2.3%	2.4%	2.5%
General & Administrative Expenses	9.1%	8.9%	8.2%	7.5%	10.2%	9.8%	10.1%	10.4%	9.3%
Occupancy Expenses	1.8%	1.7%	1.3%	1.3%	1.5%	1.5%	1.6%	1.6%	1.6%
Total Operating Expenses	22.7%	21.4%	22.0%	20.5%	24.7%	22.1%	25.1%	24.5%	23.2%
Sales Performance									
Percent Sales Change from Prior Year	-3.1%	-3.0%	-11.7%	-9.4%	-3.7%	-3.2%	-3.7%	0.4%	-4.3%

Plumbing Supplies & Equipment Firms

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS

	TYPICAL	RANGE OF COMMON EXPERIENCE
Overall Performance		
Net Profit After Tax to Net Worth	3.91%	-0.93 - 9.56%
Total Assets to Net Worth	1.71X	1.36 - 2.68X
Net Profit After Tax to Total Assets	2.52%	-0.60 - 5.63%
Net Sales to Total Assets	2.40X	1.99 - 2.84X
Net Profit After Tax to Net Sales	1.00%	-0.30 - 2.40%
Net Profit Before Tax to Total Assets	2.78%	-1.07 - 7.83%
EBIT to Total Assets	5.26%	1.77 - 10.18%
Sales Analysis		
Net Sales($000)	$3,711	$2,462 - 7,793
Percent Sales Change from Prior Year	-3.10%	-9.16 - 3.25%
Sales Mix:		
Direct Sales	11.4%	4.7 - 16.0%
Warehouse Sales - Counter	34.8%	18.8 - 47.0%
Warehouse Sales - Delivery	53.8%	40.1 - 72.0%
TOTAL SALES	100.0%	100.0 - 100.0%
Product Sales Mix		
Plumbing Supplies & Equipment	76.9%	65.0 - 90.0%
Heating & Cooling Supplies & Equipment	10.9%	0.0 - 20.0%
Industrial P-V-F (Pipes-Valves-Fittings)	6.7%	0.0 - 10.0%
Other Industrial Supplies & Equipment	2.0%	0.0 - 3.0%
Other Products	3.5%	0.0 - 3.0%
TOTAL SALES	100.0%	100.0 - 100.0%
Gross Margin		
Gross Margin on Net Sales	25.0%	21.5 - 27.3%
Gross Margin on Direct Shipments	10.5%	8.6 - 15.0%
Gross Margin on Warehouse Sales	25.4%	23.0 - 28.5%
Asset and Financial Management		
Current Asset Turn (Sales/Current Assets)	2.75X	2.29 - 3.34X
Total Debt to Net Worth	68.9%	35.2 - 163.6%
Current Debt to Net Worth	48.3%	28.3 - 110.3%
Current Assets to Current Debt	2.93X	1.88 - 4.05X
Current Assets Minus Inventory/Curr Debt	1.28X	0.77 - 1.85X
Invoice/Transaction Data		
Billing Lines Per Invoice	6.0	5.0 - 8.5
Average Invoice Size	$147	$107 - 193
Average Billing Line	$22.03	$13.75 - 32.06

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS

	TYPICAL	RANGE OF COMMON EXPERIENCE
Personnel Productivity		
Sales Per Employee	$158,548	$131,477 - 196,440
Gross Margin Per Employee	$37,367	$32,142 - 46,354
Average Compensation Per Employee	$19,389	$16,439 - 22,219
Average Fringe Benefits Per Employee	$3,080	$2,201 - 4,408
Compensation & Fringes Per Employee	$22,630	$18,950 - 25,794
Payroll to Net Sales	12.0%	10.6 - 14.2%
Fringe Benefits to Net Sales	2.1%	1.5 - 2.8%
Payroll & Fringes to Net Sales	14.1%	12.3 - 16.8%
Payroll to Gross Margin	50.5%	44.3 - 55.5%
Fringe Benefits to Gross Margin	8.3%	6.4 - 10.9%
Payroll & Fringes to Gross Margin	59.2%	51.6 - 64.0%
Inventory Management		
Cost of Whse Goods Sold to Ave Inventory	3.27X	2.42 - 4.41X
No. of Days Average Inventory Carried	112 Days	83 - 151 Days
Total Cost of Goods Sold to Ave Inventory	3.74X	2.79 - 5.06X
Whse Gross Margin Return on Ave Inventory	113%	90 - 146%
Turn & Earn Profitability Index	85%	64 - 108%
Percent of Firms on LIFO	49.28%	
Accounts Receivable		
Average Collection Period	50 Days	42 - 60 Days
Gross Margin Return on Receivables	183%	135 - 225%
Aging of Receivable Dollars:		
Current	62.5%	54.6 - 73.9%
1-30 Days Past Due	14.6%	8.1 - 19.3%
31-60 Days Past Due	8.4%	4.9 - 10.4%
61-90 Days Past Due	5.7%	2.0 - 7.8%
Over 90 Days Past Due	9.0%	2.4 - 11.6%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current	$960	$601 - 1,486
1-30 Days Past Due	$1,000	$632 - 1,845
31-60 Days Past Due	$1,238	$555 - 1,996
61-90 Days Past Due	$1,081	$643 - 2,006
Over 90 Days Past Due	$1,669	$1,003 - 3,262
Total	$1,015	$705 - 1,467
Aging of Receivable Accounts:		
Current	66.6%	60.0 - 78.2%
1-30 Days Past Due	14.3%	8.0 - 19.0%
31-60 Days Past Due	8.1%	4.3 - 9.6%
61-90 Days Past Due	5.4%	2.1 - 7.1%
Over 90 Days Past Due	5.6%	1.3 - 7.8%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS

	TYPICAL	RANGE OF COMMON EXPERIENCE
Income Statement		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	75.5%	72.8 - 78.5%
Gross Margin	25.0%	21.5 - 27.3%
Operating Expenses:		
Selling Expenses	5.6%	4.1 - 7.3%
Delivery Expenses	1.9%	1.2 - 2.6%
Warehouse Expenses	2.7%	1.8 - 3.8%
General & Administrative Expenses	9.1%	7.0 - 11.4%
Occupancy Expenses	1.8%	1.0 - 2.7%
Other Operating Expenses	0.0%	0.0 - 0.9%
Total Operating Expenses	22.7%	20.0 - 26.8%
Net Operating Profit	1.5%	-0.4 - 3.2%
Non-Operating Income	2.1%	1.2 - 3.0%
Non-Operating Expenses	1.8%	1.1 - 3.2%
Net Profit Before Tax	1.1%	-0.4 - 3.4%
Net Profit After Tax	1.0%	-0.3 - 2.4%
Operating Expense Control		
Total Operating Expense to Net Sales	22.7%	20.0 - 26.8%
Total Operating Expense to Gross Margin	93.9%	88.1 - 101.8%
Non-People Expense to Net Sales	8.0%	6.6 - 9.6%
Non-People Expense to Gross Margin	32.6%	27.2 - 39.1%
Interest Expense		
Interest Expense to Net Sales	1.0%	0.3 - 2.0%
Times Interest Earned	1.9X	0.6 - 5.7X

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES UNDER $3,000,000

	TYPICAL	RANGE OF COMMON EXPERIENCE
Overall Performance		
Net Profit After Tax to Net Worth	3.38%	-0.70 - 8.48%
Total Assets to Net Worth	1.57X	1.30 - 2.65X
Net Profit After Tax to Total Assets	2.30%	-0.60 - 5.55%
Net Sales to Total Assets	2.35X	1.97 - 2.82X
Net Profit After Tax to Net Sales	0.90%	-0.30 - 2.40%
Net Profit Before Tax to Total Assets	2.42%	-1.19 - 7.12%
EBIT to Total Assets	4.53%	0.30 - 8.64%
Sales Analysis		
Net Sales($000)	$1,911	$1,319 - 2,552
Percent Sales Change from Prior Year	-3.46%	-8.43 - 3.42%
Sales Mix:		
Direct Sales	8.1%	1.5 - 12.2%
Warehouse Sales - Counter	40.1%	23.1 - 49.9%
Warehouse Sales - Delivery	51.8%	34.7 - 72.3%
TOTAL SALES	100.0%	100.0 - 100.0%
Product Sales Mix		
Plumbing Supplies & Equipment	80.6%	70.0 - 95.0%
Heating & Cooling Supplies & Equipment	8.6%	0.0 - 15.0%
Industrial P-V-F (Pipes-Valves-Fittings)	5.9%	0.0 - 7.0%
Other Industrial Supplies & Equipment	1.5%	0.0 - 2.0%
Other Products	3.3%	0.0 - 0.0%
TOTAL SALES	100.0%	100.0 - 100.0%
Gross Margin		
Gross Margin on Net Sales	26.3%	22.3 - 29.4%
Gross Margin on Direct Shipments	10.0%	7.6 - 18.3%
Gross Margin on Warehouse Sales	27.7%	23.7 - 29.8%
Asset and Financial Management		
Current Asset Turn (Sales/Current Assets)	2.71X	2.24 - 3.24X
Total Debt to Net Worth	56.3%	29.9 - 140.4%
Current Debt to Net Worth	40.3%	23.1 - 77.7%
Current Assets to Current Debt	2.97X	2.26 - 4.42X
Current Assets Minus Inventory/Curr Debt	1.32X	0.75 - 1.90X
Invoice/Transaction Data		
Billing Lines Per Invoice	8.0	5.0 - 9.9
Average Invoice Size	$134	$91 - 182
Average Billing Line	$19.08	$13.22 - 28.54

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES UNDER $3,000,000

	TYPICAL	RANGE OF COMMON EXPERIENCE
Personnel Productivity		
Sales Per Employee	$135,800	$104,861 - 181,478
Gross Margin Per Employee	$36,028	$28,205 - 44,752
Average Compensation Per Employee	$17,342	$13,637 - 21,480
Average Fringe Benefits Per Employee	$2,307	$1,867 - 4,008
Compensation & Fringes Per Employee	$20,773	$14,763 - 25,539
Payroll to Net Sales	12.8%	11.2 - 15.5%
Fringe Benefits to Net Sales	2.1%	1.3 - 2.7%
Payroll & Fringes to Net Sales	14.7%	12.4 - 18.7%
Payroll to Gross Margin	50.5%	44.8 - 57.3%
Fringe Benefits to Gross Margin	7.8%	5.4 - 9.5%
Payroll & Fringes to Gross Margin	58.6%	50.4 - 65.3%
Inventory Management		
Cost of Whse Goods Sold to Ave Inventory	3.17X	2.27 - 4.04X
No. of Days Average Inventory Carried	115 Days	90 - 161 Days
Total Cost of Goods Sold to Ave Inventory	3.27X	2.54 - 4.65X
Whse Gross Margin Return on Ave Inventory	114%	92 - 153%
Turn & Earn Profitability Index	85%	66 - 109%
Percent of Firms on LIFO	34.04%	
Accounts Receivable		
Average Collection Period	51 Days	44 - 59 Days
Gross Margin Return on Receivables	189%	130 - 224%
Aging of Receivable Dollars:		
Current	62.4%	52.4 - 75.2%
1-30 Days Past Due	12.5%	7.4 - 18.8%
31-60 Days Past Due	8.8%	4.2 - 9.5%
61-90 Days Past Due	6.0%	1.8 - 9.4%
Over 90 Days Past Due	10.3%	2.3 - 15.0%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current	$679	$499 - 1,194
1-30 Days Past Due	$718	$407 - 1,175
31-60 Days Past Due	$931	$467 - 1,809
61-90 Days Past Due	$1,016	$540 - 2,259
Over 90 Days Past Due	$1,466	$997 - 2,840
Total	$785	$554 - 1,299
Aging of Receivable Accounts:		
Current	68.3%	57.1 - 78.2%
1-30 Days Past Due	13.3%	8.4 - 19.6%
31-60 Days Past Due	8.6%	4.2 - 10.0%
61-90 Days Past Due	4.6%	1.9 - 6.8%
Over 90 Days Past Due	5.2%	1.5 - 9.2%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES UNDER $3,000,000

	TYPICAL	RANGE OF COMMON EXPERIENCE
Income Statement		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	74.0%	70.6 - 77.7%
Gross Margin	26.3%	22.3 - 29.4%
Operating Expenses:		
Selling Expenses	5.0%	3.4 - 7.5%
Delivery Expenses	1.9%	1.2 - 2.9%
Warehouse Expenses	2.8%	1.3 - 4.4%
General & Administrative Expenses	8.9%	6.7 - 13.1%
Occupancy Expenses	1.9%	0.7 - 3.1%
Other Operating Expenses	0.0%	0.0 - 1.6%
Total Operating Expenses	24.3%	19.9 - 28.3%
Net Operating Profit	1.4%	-0.4 - 2.5%
Non-Operating Income	2.0%	0.5 - 2.6%
Non-Operating Expenses	1.7%	0.8 - 2.6%
Net Profit Before Tax	1.1%	-0.4 - 2.7%
Net Profit After Tax	0.9%	-0.3 - 2.4%
Operating Expense Control		
Total Operating Expense to Net Sales	24.3%	19.9 - 28.3%
Total Operating Expense to Gross Margin	94.5%	89.2 - 101.4%
Non-People Expense to Net Sales	8.2%	6.5 - 11.2%
Non-People Expense to Gross Margin	33.5%	26.9 - 42.2%
Interest Expense		
Interest Expense to Net Sales	0.6%	0.1 - 1.9%
Times Interest Earned	1.7X	0.2 - 8.5X

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES $3,000,000 TO $7,000,000

	TYPICAL	RANGE OF COMMON EXPERIENCE
Overall Performance		
Net Profit After Tax to Net Worth	3.61%	-3.55 - 9.81%
Total Assets to Net Worth	1.69X	1.35 - 2.43X
Net Profit After Tax to Total Assets	2.63%	-1.58 - 4.93%
Net Sales to Total Assets	2.35X	1.88 - 2.99X
Net Profit After Tax to Net Sales	1.00%	-0.70 - 2.20%
Net Profit Before Tax to Total Assets	2.92%	-1.73 - 7.72%
EBIT to Total Assets	4.60%	1.35 - 10.18%
Sales Analysis		
Net Sales($000)	$4,089	$3,356 - 4,897
Percent Sales Change from Prior Year	-3.59%	-7.82 - 3.50%
Sales Mix:		
Direct Sales	10.9%	5.0 - 15.1%
Warehouse Sales - Counter	34.4%	14.2 - 40.9%
Warehouse Sales - Delivery	54.7%	44.0 - 74.6%
TOTAL SALES	100.0%	100.0 - 100.0%
Product Sales Mix		
Plumbing Supplies & Equipment	76.3%	65.0 - 90.0%
Heating & Cooling Supplies & Equipment	12.5%	2.0 - 25.0%
Industrial P-V-F (Pipes-Valves-Fittings)	6.6%	0.0 - 11.0%
Other Industrial Supplies & Equipment	1.6%	0.0 - 3.0%
Other Products	2.9%	0.0 - 0.0%
TOTAL SALES	100.0%	100.0 - 100.0%
Gross Margin		
Gross Margin on Net Sales	25.0%	22.0 - 27.3%
Gross Margin on Direct Shipments	10.3%	8.3 - 14.8%
Gross Margin on Warehouse Sales	24.4%	21.5 - 28.3%
Asset and Financial Management		
Current Asset Turn (Sales/Current Assets)	2.75X	2.15 - 3.36X
Total Debt to Net Worth	69.3%	34.8 - 142.7%
Current Debt to Net Worth	53.8%	26.6 - 97.5%
Current Assets to Current Debt	2.93X	1.93 - 4.26X
Current Assets Minus Inventory/Curr Debt	1.27X	0.79 - 2.11X
Invoice/Transaction Data		
Billing Lines Per Invoice	7.0	5.0 - 10.0
Average Invoice Size	$154	$108 - 190
Average Billing Line	$17.98	$13.17 - 27.32

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES $3,000,000 TO $7,000,000

	TYPICAL	RANGE OF COMMON EXPERIENCE
Personnel Productivity		
Sales Per Employee	$148,512	$132,732 - 196,988
Gross Margin Per Employee	$37,439	$33,311 - 47,297
Average Compensation Per Employee	$19,516	$17,568 - 22,127
Average Fringe Benefits Per Employee	$3,240	$2,256 - 4,450
Compensation & Fringes Per Employee	$22,671	$20,104 - 26,469
Payroll to Net Sales	12.1%	10.5 - 14.5%
Fringe Benefits to Net Sales	2.1%	1.6 - 2.9%
Payroll & Fringes to Net Sales	14.5%	12.5 - 18.0%
Payroll to Gross Margin	52.6%	45.3 - 56.5%
Fringe Benefits to Gross Margin	8.4%	7.0 - 11.3%
Payroll & Fringes to Gross Margin	61.0%	53.9 - 67.9%
Inventory Management		
Cost of Whse Goods Sold to Ave Inventory	3.16X	2.35 - 4.72X
No. of Days Average Inventory Carried	115 Days	78 - 155 Days
Total Cost of Goods Sold to Ave Inventory	3.64X	2.77 - 4.84X
Whse Gross Margin Return on Ave Inventory	107%	90 - 137%
Turn & Earn Profitability Index	77%	63 - 106%
Percent of Firms on LIFO	52.00%	
Accounts Receivable		
Average Collection Period	46 Days	37 - 62 Days
Gross Margin Return on Receivables	190%	148 - 233%
Aging of Receivable Dollars:		
Current	60.9%	52.3 - 72.5%
1-30 Days Past Due	14.4%	7.8 - 19.0%
31-60 Days Past Due	9.2%	5.3 - 11.8%
61-90 Days Past Due	5.6%	2.0 - 8.3%
Over 90 Days Past Due	10.0%	4.6 - 11.8%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current	$1,042	$584 - 1,429
1-30 Days Past Due	$1,173	$642 - 2,475
31-60 Days Past Due	$926	$527 - 2,193
61-90 Days Past Due	$922	$552 - 2,036
Over 90 Days Past Due	$1,750	$1,097 - 4,353
Total	$1,023	$733 - 1,226
Aging of Receivable Accounts:		
Current	61.0%	55.3 - 71.8%
1-30 Days Past Due	15.7%	3.0 - 19.0%
31-60 Days Past Due	8.7%	4.4 - 10.0%
61-90 Days Past Due	6.7%	3.1 - 8.3%
Over 90 Days Past Due	7.9%	2.1 - 8.2%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES $3,000,000 TO $7,000,000

Income Statement

	TYPICAL	RANGE OF COMMON EXPERIENCE
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	75.4%	72.8 - 78.0%
Gross Margin	25.0%	22.0 - 27.3%
Operating Expenses:		
Selling Expenses	5.8%	4.8 - 7.1%
Delivery Expenses	2.0%	1.2 - 2.6%
Warehouse Expenses	2.7%	1.8 - 3.6%
General & Administrative Expenses	10.0%	7.9 - 11.8%
Occupancy Expenses	2.0%	1.3 - 2.8%
Other Operating Expenses	0.0%	0.0 - 0.5%
Total Operating Expenses	22.9%	20.5 - 26.7%
Net Operating Profit	1.0%	-0.8 - 3.3%
Non-Operating Income	2.0%	1.0 - 3.1%
Non-Operating Expenses	1.7%	1.1 - 3.6%
Net Profit Before Tax	1.2%	-1.3 - 3.3%
Net Profit After Tax	1.0%	-0.7 - 2.2%

Operating Expense Control

	TYPICAL	RANGE OF COMMON EXPERIENCE
Total Operating Expense to Net Sales	22.9%	20.5 - 26.7%
Total Operating Expense to Gross Margin	95.5%	87.7 - 102.3%
Non-People Expense to Net Sales	8.0%	6.6 - 9.4%
Non-People Expense to Gross Margin	31.9%	26.4 - 37.7%

Interest Expense

	TYPICAL	RANGE OF COMMON EXPERIENCE
Interest Expense to Net Sales	1.0%	0.4 - 2.6%
Times Interest Earned	2.2X	0.5 - 4.2X

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES $7,000,000 TO $12,000,000

	TYPICAL	RANGE OF COMMON EXPERIENCE
Overall Performance		
Net Profit After Tax to Net Worth	3.81%	-0.18 - 9.56%
Total Assets to Net Worth	1.96X	1.52 - 3.87X
Net Profit After Tax to Total Assets	1.99%	-0.05 - 6.07%
Net Sales to Total Assets	2.63X	2.21 - 2.87X
Net Profit After Tax to Net Sales	0.60%	0.00 - 2.40%
Net Profit Before Tax to Total Assets	2.25%	0.65 - 7.89%
EBIT to Total Assets	8.12%	2.71 - 11.71%
Sales Analysis		
Net Sales ($000)	$8,084	$7,556 - 9,261
Percent Sales Change from Prior Year	-1.99%	-12.48 - 1.44%
Sales Mix:		
Direct Sales	13.4%	5.6 - 21.0%
Warehouse Sales - Counter	27.7%	8.2 - 49.1%
Warehouse Sales - Delivery	58.9%	42.4 - 76.9%
TOTAL SALES	100.0%	100.0 - 100.0%
Product Sales Mix		
Plumbing Supplies & Equipment	73.9%	65.8 - 83.4%
Heating & Cooling Supplies & Equipment	13.7%	3.0 - 24.3%
Industrial P-V-F (Pipes-Valves-Fittings)	6.0%	0.0 - 10.0%
Other Industrial Supplies & Equipment	3.2%	0.0 - 1.5%
Other Products	3.3%	0.0 - 4.5%
TOTAL SALES	100.0%	100.0 - 100.0%
Gross Margin		
Gross Margin on Net Sales	23.6%	22.4 - 25.4%
Gross Margin on Direct Shipments	10.5%	8.4 - 15.1%
Gross Margin on Warehouse Sales	24.8%	23.4 - 27.0%
Asset and Financial Management		
Current Asset Turn (Sales/Current Assets)	2.95X	2.56 - 3.49X
Total Debt to Net Worth	96.4%	51.8 - 286.6%
Current Debt to Net Worth	67.9%	32.3 - 202.2%
Current Assets to Current Debt	2.89X	1.64 - 4.09X
Current Assets Minus Inventory/Curr Debt	1.16X	0.59 - 1.51X
Invoice/Transaction Data		
Billing Lines Per Invoice	5.5	4.0 - 7.1
Average Invoice Size	$156	$110 - 297
Average Billing Line	$24.16	$16.44 - 53.16

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES $7,000,000 TO $12,000,000

	TYPICAL	RANGE OF COMMON EXPERIENCE
Personnel Productivity		
Sales Per Employee	$165,340	$158,594 - 224,888
Gross Margin Per Employee	$37,946	$35,403 - 50,276
Average Compensation Per Employee	$19,465	$17,598 - 20,335
Average Fringe Benefits Per Employee	$3,221	$2,562 - 6,812
Compensation & Fringes Per Employee	$21,622	$20,508 - 29,594
Payroll to Net Sales	11.4%	9.9 - 12.8%
Fringe Benefits to Net Sales	2.1%	1.6 - 2.7%
Payroll & Fringes to Net Sales	13.7%	12.4 - 14.6%
Payroll to Gross Margin	49.0%	43.2 - 52.3%
Fringe Benefits to Gross Margin	9.1%	6.6 - 11.9%
Payroll & Fringes to Gross Margin	56.9%	54.2 - 61.8%
Inventory Management		
Cost of Whse Goods Sold to Ave Inventory	3.29X	2.48 - 4.75X
No. of Days Average Inventory Carried	111 Days	77 - 149 Days
Total Cost of Goods Sold to Ave Inventory	3.67X	3.19 - 5.30X
Whse Gross Margin Return on Ave Inventory	112%	76 - 151%
Turn & Earn Profitability Index	85%	55 - 115%
Percent of Firms on LIFO	56.25%	
Accounts Receivable		
Average Collection Period	50 Days	42 - 57 Days
Gross Margin Return on Receivables	179%	138 - 222%
Aging of Receivable Dollars:		
Current	66.8%	57.4 - 79.2%
1-30 Days Past Due	14.9%	7.9 - 20.2%
31-60 Days Past Due	6.1%	4.0 - 9.0%
61-90 Days Past Due	5.4%	1.9 - 6.6%
Over 90 Days Past Due	6.8%	0.0 - 13.3%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current	$1,348	$988 - 1,696
1-30 Days Past Due	$1,474	$703 - 2,004
31-60 Days Past Due	$1,367	$705 - 2,013
61-90 Days Past Due	$1,294	$966 - 2,035
Over 90 Days Past Due	$1,576	$942 - 2,269
Total	$1,206	$836 - 1,863
Aging of Receivable Accounts:		
Current	69.8%	62.4 - 81.3%
1-30 Days Past Due	15.0%	9.6 - 19.2%
31-60 Days Past Due	6.4%	3.6 - 10.1%
61-90 Days Past Due	5.1%	1.9 - 6.7%
Over 90 Days Past Due	3.8%	0.0 - 8.2%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES $7,000,000 TO $12,000,000

	TYPICAL	RANGE OF COMMON EXPERIENCE
Income Statement		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	76.0%	74.5 - 77.6%
Gross Margin	23.6%	22.4 - 25.4%
Operating Expenses:		
Selling Expenses	7.2%	4.8 - 7.9%
Delivery Expenses	1.8%	0.8 - 2.7%
Warehouse Expenses	2.3%	2.1 - 3.8%
General & Administrative Expenses	7.8%	6.1 - 9.3%
Occupancy Expenses	1.8%	1.2 - 4.0%
Other Operating Expenses	0.1%	0.0 - 0.6%
Total Operating Expenses	22.4%	18.0 - 24.3%
Net Operating Profit	2.5%	-0.3 - 2.8%
Non-Operating Income	2.3%	1.0 - 4.3%
Non-Operating Expenses	2.1%	0.8 - 3.6%
Net Profit Before Tax	2.0%	0.3 - 3.4%
Net Profit After Tax	0.6%	0.0 - 2.4%
Operating Expense Control		
Total Operating Expense to Net Sales	22.4%	18.0 - 24.3%
Total Operating Expense to Gross Margin	89.8%	88.0 - 101.1%
Non-People Expense to Net Sales	8.3%	6.2 - 9.9%
Non-People Expense to Gross Margin	34.8%	29.6 - 40.9%
Interest Expense		
Interest Expense to Net Sales	1.3%	0.7 - 2.8%
Times Interest Earned	1.7X	0.9 - 5.8X

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES OVER $12,000,000

	TYPICAL	RANGE OF COMMON EXPERIENCE
Overall Performance		
Net Profit After Tax to Net Worth	5.76%	2.33 - 13.44%
Total Assets to Net Worth	2.10X	1.41 - 2.60X
Net Profit After Tax to Total Assets	3.12%	0.96 - 6.80%
Net Sales to Total Assets	2.51X	2.13 - 2.78X
Net Profit After Tax to Net Sales	1.30%	0.30 - 2.40%
Net Profit Before Tax to Total Assets	4.85%	1.08 - 11.62%
EBIT to Total Assets	5.91%	2.72 - 12.58%
Sales Analysis		
Net Sales($000)	$16,522	$14,032 - 26,291
Percent Sales Change from Prior Year	-2.61%	-11.90 - 6.52%
Sales Mix:		
Direct Sales	17.6%	12.7 - 24.8%
Warehouse Sales - Counter	30.3%	20.5 - 37.6%
Warehouse Sales - Delivery	52.0%	40.3 - 64.1%
TOTAL SALES	100.0%	100.0 - 100.0%
Product Sales Mix		
Plumbing Supplies & Equipment	72.5%	60.0 - 82.9%
Heating & Cooling Supplies & Equipment	10.4%	0.0 - 15.0%
Industrial P-V-F (Pipes-Valves-Fittings)	8.9%	0.8 - 12.5%
Other Industrial Supplies & Equipment	2.9%	0.0 - 5.0%
Other Products	5.2%	0.0 - 5.5%
TOTAL SALES	100.0%	100.0 - 100.0%
Gross Margin		
Gross Margin on Net Sales	23.1%	20.2 - 25.2%
Gross Margin on Direct Shipments	10.5%	9.2 - 12.3%
Gross Margin on Warehouse Sales	25.3%	22.5 - 26.8%
Asset and Financial Management		
Current Asset Turn (Sales/Current Assets)	3.05X	2.54 - 3.34X
Total Debt to Net Worth	110.1%	41.3 - 160.5%
Current Debt to Net Worth	77.4%	36.6 - 118.7%
Current Assets to Current Debt	2.83X	1.75 - 3.60X
Current Assets Minus Inventory/Curr Debt	1.28X	0.84 - 1.57X
Invoice/Transaction Data		
Billing Lines Per Invoice	5.0	4.2 - 6.8
Average Invoice Size	$170	$122 - 204
Average Billing Line	$31.88	$22.63 - 41.29

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES OVER $12,000,000

	TYPICAL	RANGE OF COMMON EXPERIENCE
Personnel Productivity		
Sales Per Employee	$168,195	$150,217 - 205,486
Gross Margin Per Employee	$39,551	$34,549 - 48,044
Average Compensation Per Employee	$19,800	$17,936 - 22,950
Average Fringe Benefits Per Employee	$3,622	$2,652 - 4,240
Compensation & Fringes Per Employee	$23,854	$20,535 - 25,958
Payroll to Net Sales	11.1%	10.2 - 11.9%
Fringe Benefits to Net Sales	1.9%	1.3 - 2.8%
Payroll & Fringes to Net Sales	12.6%	11.1 - 14.4%
Payroll to Gross Margin	50.5%	44.0 - 54.0%
Fringe Benefits to Gross Margin	8.7%	6.5 - 11.7%
Payroll & Fringes to Gross Margin	58.2%	47.1 - 62.9%
Inventory Management		
Cost of Whse Goods Sold to Ave Inventory	3.80X	2.83 - 4.66X
No. of Days Average Inventory Carried	96 Days	78 - 130 Days
Total Cost of Goods Sold to Ave Inventory	4.73X	3.04 - 5.51X
Whse Gross Margin Return on Ave Inventory	130%	92 - 142%
Turn & Earn Profitability Index	96%	69 - 115%
Percent of Firms on LIFO	68.00%	
Accounts Receivable		
Average Collection Period	50 Days	46 - 66 Days
Gross Margin Return on Receivables	164%	109 - 193%
Aging of Receivable Dollars:		
Current	62.8%	57.0 - 73.7%
1-30 Days Past Due	18.9%	15.4 - 20.8%
31-60 Days Past Due	7.5%	5.5 - 9.3%
61-90 Days Past Due	5.4%	1.9 - 6.6%
Over 90 Days Past Due	5.6%	0.7 - 7.0%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current	$1,429	$862 - 1,721
1-30 Days Past Due	$2,103	$1,604 - 2,655
31-60 Days Past Due	$1,410	$1,284 - 2,225
61-90 Days Past Due	$1,098	$843 - 1,630
Over 90 Days Past Due	$2,467	$634 - 4,152
Total	$1,411	$1,013 - 2,081
Aging of Receivable Accounts:		
Current	71.8%	61.4 - 82.9%
1-30 Days Past Due	13.7%	8.0 - 17.8%
31-60 Days Past Due	6.3%	3.6 - 9.0%
61-90 Days Past Due	5.7%	2.3 - 7.9%
Over 90 Days Past Due	2.6%	0.0 - 4.0%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES OVER $12,000,000

	TYPICAL	RANGE OF COMMON EXPERIENCE
Income Statement		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	77.4%	74.8 - 79.8%
Gross Margin	23.1%	20.2 - 25.2%
Operating Expenses:		
Selling Expenses	5.2%	4.0 - 7.3%
Delivery Expenses	1.9%	1.5 - 2.4%
Warehouse Expenses	2.6%	1.9 - 3.6%
General & Administrative Expenses	7.8%	6.0 - 10.2%
Occupancy Expenses	1.5%	0.7 - 2.2%
Other Operating Expenses	0.0%	0.0 - 1.0%
Total Operating Expenses	20.8%	18.9 - 23.3%
Net Operating Profit	1.6%	-0.6 - 4.4%
Non-Operating Income	2.4%	2.0 - 3.2%
Non-Operating Expenses	2.1%	1.5 - 3.1%
Net Profit Before Tax	1.4%	-0.1 - 4.5%
Net Profit After Tax	1.3%	0.3 - 2.4%
Operating Expense Control		
Total Operating Expense to Net Sales	20.8%	18.9 - 23.3%
Total Operating Expense to Gross Margin	92.2%	77.3 - 102.3%
Non-People Expense to Net Sales	7.7%	6.7 - 8.7%
Non-People Expense to Gross Margin	30.8%	27.4 - 38.3%
Interest Expense		
Interest Expense to Net Sales	1.0%	0.3 - 1.3%
Times Interest Earned	2.0X	1.0 - 40.4X

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

HIGH PROFIT PLUMBING SUPPLIES & EQUIPMENT FIRMS

	TYPICAL	RANGE OF COMMON EXPERIENCE
Overall Performance		
Net Profit After Tax to Net Worth	9.43%	5.97 - 14.66%
Total Assets to Net Worth	1.52X	1.29 - 2.40X
Net Profit After Tax to Total Assets	5.39%	3.54 - 7.74%
Net Sales to Total Assets	2.36X	1.98 - 2.81X
Net Profit After Tax to Net Sales	2.30%	1.60 - 3.40%
Net Profit Before Tax to Total Assets	7.77%	4.76 - 11.62%
EBIT to Total Assets	10.32%	7.16 - 15.30%
Sales Analysis		
Net Sales($000)	$3,710	$2,520 - 8,132
Percent Sales Change from Prior Year	-2.99%	-7.96 - 5.51%
Sales Mix:		
Direct Sales	10.6%	4.4 - 15.2%
Warehouse Sales - Counter	35.1%	20.3 - 42.1%
Warehouse Sales - Delivery	54.2%	43.2 - 68.5%
TOTAL SALES	100.0%	100.0 - 100.0%
Product Sales Mix		
Plumbing Supplies & Equipment	76.9%	63.0 - 90.0%
Heating & Cooling Supplies & Equipment	10.3%	0.0 - 20.0%
Industrial P-V-F (Pipes-Valves-Fittings)	7.5%	0.0 - 10.0%
Other Industrial Supplies & Equipment	2.4%	0.0 - 5.0%
Other Products	2.8%	0.0 - 1.0%
TOTAL SALES	100.0%	100.0 - 100.0%
Gross Margin		
Gross Margin on Net Sales	26.2%	22.7 - 28.5%
Gross Margin on Direct Shipments	10.0%	8.0 - 14.1%
Gross Margin on Warehouse Sales	26.3%	23.2 - 29.4%
Asset and Financial Management		
Current Asset Turn (Sales/Current Assets)	2.75X	2.28 - 3.35X
Total Debt to Net Worth	51.8%	29.3 - 131.0%
Current Debt to Net Worth	40.3%	25.5 - 86.4%
Current Assets to Current Debt	3.32X	1.87 - 4.29X
Current Assets Minus Inventory/Curr Debt	1.33X	0.88 - 1.98X
Invoice/Transaction Data		
Billing Lines Per Invoice	7.0	5.0 - 10.0
Average Invoice Size	$153	$114 - 193
Average Billing Line	$22.26	$13.34 - 32.36

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

HIGH PROFIT PLUMBING SUPPLIES & EQUIPMENT FIRMS

	TYPICAL	RANGE OF COMMON EXPERIENCE
Personnel Productivity		
Sales Per Employee	$173,963	$138,494 - 205,964
Gross Margin Per Employee	$41,483	$36,035 - 51,165
Average Compensation Per Employee	$19,706	$17,289 - 22,953
Average Fringe Benefits Per Employee	$3,240	$2,318 - 4,579
Compensation & Fringes Per Employee	$23,212	$19,927 - 26,937
Payroll to Net Sales	11.6%	10.2 - 13.8%
Fringe Benefits to Net Sales	2.1%	1.4 - 2.8%
Payroll & Fringes to Net Sales	13.4%	12.1 - 16.1%
Payroll to Gross Margin	46.6%	41.5 - 52.1%
Fringe Benefits to Gross Margin	7.9%	5.9 - 11.0%
Payroll & Fringes to Gross Margin	55.5%	48.7 - 60.7%
Inventory Management		
Cost of Whse Goods Sold to Ave Inventory	3.51X	2.62 - 4.78X
No. of Days Average Inventory Carried	104 Days	76 - 139 Days
Total Cost of Goods Sold to Ave Inventory	3.68X	2.83 - 5.30X
Whse Gross Margin Return on Ave Inventory	130%	102 - 158%
Turn & Earn Profitability Index	92%	74 - 115%
Percent of Firms on LIFO	44.12%	
Accounts Receivable		
Average Collection Period	51 Days	44 - 66 Days
Gross Margin Return on Receivables	186%	130 - 221%
Aging of Receivable Dollars:		
Current	64.0%	55.1 - 76.1%
1-30 Days Past Due	14.3%	9.1 - 18.8%
31-60 Days Past Due	8.5%	4.7 - 10.4%
61-90 Days Past Due	5.5%	1.8 - 8.1%
Over 90 Days Past Due	7.6%	1.1 - 11.4%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current	$1,088	$602 - 1,516
1-30 Days Past Due	$1,343	$635 - 1,922
31-60 Days Past Due	$1,348	$636 - 2,133
61-90 Days Past Due	$1,089	$631 - 1,790
Over 90 Days Past Due	$1,683	$1,000 - 4,274
Total	$1,132	$671 - 1,564
Aging of Receivable Accounts:		
Current	69.0%	62.5 - 78.6%
1-30 Days Past Due	13.5%	7.9 - 19.2%
31-60 Days Past Due	8.6%	4.8 - 9.3%
61-90 Days Past Due	5.2%	2.8 - 7.0%
Over 90 Days Past Due	3.7%	0.1 - 5.9%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

HIGH PROFIT PLUMBING SUPPLIES & EQUIPMENT FIRMS

	TYPICAL	RANGE OF COMMON EXPERIENCE
Income Statement		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	74.2%	71.5 - 77.3%
Gross Margin	26.2%	22.7 - 28.5%
Operating Expenses:		
Selling Expenses	5.4%	3.8 - 7.3%
Delivery Expenses	1.8%	1.2 - 2.4%
Warehouse Expenses	2.5%	1.9 - 3.6%
General & Administrative Expenses	8.9%	6.2 - 10.6%
Occupancy Expenses	1.7%	0.8 - 2.3%
Other Operating Expenses	0.0%	0.0 - 0.8%
Total Operating Expenses	21.4%	19.6 - 25.1%
Net Operating Profit	2.8%	1.8 - 5.5%
Non-Operating Income	2.3%	1.0 - 3.3%
Non-Operating Expenses	1.5%	0.7 - 2.6%
Net Profit Before Tax	3.3%	2.2 - 5.0%
Net Profit After Tax	2.3%	1.6 - 3.4%
Operating Expense Control		
Total Operating Expense to Net Sales	21.4%	19.6 - 25.1%
Total Operating Expense to Gross Margin	88.9%	77.9 - 92.9%
Non-People Expense to Net Sales	7.2%	6.3 - 8.6%
Non-People Expense to Gross Margin	29.4%	22.9 - 34.7%
Interest Expense		
Interest Expense to Net Sales	0.6%	0.2 - 2.0%
Times Interest Earned	4.7X	2.3 - 31.8X

Industrial P-V-F Firms

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

INDUSTRIAL P-V-F FIRMS

	TYPICAL	RANGE OF COMMON EXPERIENCE
Overall Performance		
Net Profit After Tax to Net Worth	1.92%	-1.34 - 9.01%
Total Assets to Net Worth	1.83X	1.36 - 2.45X
Net Profit After Tax to Total Assets	1.13%	-0.89 - 4.34%
Net Sales to Total Assets	2.51X	2.11 - 3.16X
Net Profit After Tax to Net Sales	0.60%	-0.30 - 1.60%
Net Profit Before Tax to Total Assets	1.87%	-1.82 - 5.44%
EBIT to Total Assets	4.60%	1.33 - 9.42%
Sales Analysis		
Net Sales($000)	$5,616	$3,040 - 13,275
Percent Sales Change from Prior Year	-11.66%	-16.82 - -0.81%
Sales Mix:		
Direct Sales	15.5%	5.1 - 21.1%
Warehouse Sales - Counter	6.8%	0.2 - 11.5%
Warehouse Sales - Delivery	77.7%	65.8 - 91.2%
TOTAL SALES	100.0%	100.0 - 100.0%
Product Sales Mix		
Plumbing Supplies & Equipment	7.1%	0.0 - 12.0%
Heating & Cooling Supplies & Equipment	2.2%	0.0 - 0.3%
Industrial P-V-F (Pipes-Valves-Fittings)	83.4%	69.5 - 100.0%
Other Industrial Supplies & Equipment	4.3%	0.0 - 8.5%
Other Products	3.0%	0.0 - 0.3%
TOTAL SALES	100.0%	100.0 - 100.0%
Gross Margin		
Gross Margin on Net Sales	23.4%	19.0 - 27.0%
Gross Margin on Direct Shipments	11.8%	9.1 - 16.4%
Gross Margin on Warehouse Sales	26.0%	21.5 - 29.5%
Asset and Financial Management		
Current Asset Turn (Sales/Current Assets)	3.03X	2.39 - 3.89X
Total Debt to Net Worth	83.3%	36.4 - 144.9%
Current Debt to Net Worth	58.8%	28.4 - 119.7%
Current Assets to Current Debt	2.52X	1.74 - 4.43X
Current Assets Minus Inventory/Curr Debt	1.24X	0.66 - 2.02X
Invoice/Transaction Data		
Billing Lines Per Invoice	5.0	4.0 - 6.0
Average Invoice Size	$340	$226 - 467
Average Billing Line	$59.40	$42.34 - 134.92

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

INDUSTRIAL P-V-F FIRMS

	TYPICAL	RANGE OF COMMON EXPERIENCE
Personnel Productivity		
Sales Per Employee	$201,377	$141,748 - 252,656
Gross Margin Per Employee	$44,529	$34,504 - 55,163
Average Compensation Per Employee	$22,550	$20,269 - 27,041
Average Fringe Benefits Per Employee	$3,886	$2,800 - 5,557
Compensation & Fringes Per Employee	$27,070	$22,892 - 31,754
Payroll to Net Sales	12.3%	9.3 - 14.4%
Fringe Benefits to Net Sales	1.9%	1.5 - 2.8%
Payroll & Fringes to Net Sales	13.9%	11.0 - 16.9%
Payroll to Gross Margin	52.3%	46.5 - 57.3%
Fringe Benefits to Gross Margin	9.1%	6.4 - 11.8%
Payroll & Fringes to Gross Margin	60.3%	54.5 - 68.8%
Inventory Management		
Cost of Whse Goods Sold to Ave Inventory	2.67X	2.13 - 3.57X
No. of Days Average Inventory Carried	137 Days	102 - 171 Days
Total Cost of Goods Sold to Ave Inventory	3.65X	2.84 - 4.59X
Whse Gross Margin Return on Ave Inventory	95%	77 - 124%
Turn & Earn Profitability Index	67%	56 - 86%
Percent of Firms on LIFO	65.22%	
Accounts Receivable		
Average Collection Period	40 Days	31 - 45 Days
Gross Margin Return on Receivables	229%	199 - 265%
Aging of Receivable Dollars:		
Current	60.4%	50.2 - 74.2%
1-30 Days Past Due	20.7%	10.4 - 25.2%
31-60 Days Past Due	8.4%	3.2 - 11.4%
61-90 Days Past Due	4.7%	1.4 - 6.9%
Over 90 Days Past Due	5.9%	0.2 - 9.0%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current	$1,293	$802 - 2,436
1-30 Days Past Due	$1,003	$492 - 2,822
31-60 Days Past Due	$827	$523 - 2,545
61-90 Days Past Due	$900	$540 - 1,698
Over 90 Days Past Due	$1,231	$565 - 3,457
Total	$1,345	$824 - 2,485
Aging of Receivable Accounts:		
Current	55.5%	46.2 - 73.6%
1-30 Days Past Due	24.0%	11.6 - 30.6%
31-60 Days Past Due	9.9%	6.7 - 12.2%
61-90 Days Past Due	4.7%	2.5 - 6.5%
Over 90 Days Past Due	5.8%	1.2 - 6.3%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

INDUSTRIAL P-V-F FIRMS

	TYPICAL	RANGE OF COMMON EXPERIENCE
Income Statement		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	75.9%	73.0 - 81.0%
Gross Margin	23.4%	19.0 - 27.0%
Operating Expenses:		
Selling Expenses	6.5%	5.2 - 9.8%
Delivery Expenses	1.9%	1.1 - 2.5%
Warehouse Expenses	2.1%	1.3 - 3.4%
General & Administrative Expenses	8.2%	5.6 - 10.4%
Occupancy Expenses	1.3%	0.7 - 1.9%
Other Operating Expenses	0.0%	0.0 - 0.4%
Total Operating Expenses	22.0%	17.7 - 25.0%
Net Operating Profit	1.4%	0.1 - 2.6%
Non-Operating Income	1.3%	0.7 - 1.8%
Non-Operating Expenses	1.8%	1.3 - 3.0%
Net Profit Before Tax	0.7%	-0.9 - 1.9%
Net Profit After Tax	0.6%	-0.3 - 1.6%
Operating Expense Control		
Total Operating Expense to Net Sales	22.0%	17.7 - 25.0%
Total Operating Expense to Gross Margin	94.0%	87.2 - 99.4%
Non-People Expense to Net Sales	6.9%	5.6 - 9.2%
Non-People Expense to Gross Margin	32.3%	25.9 - 36.8%
Interest Expense		
Interest Expense to Net Sales	1.2%	0.5 - 1.7%
Times Interest Earned	2.0X	0.7 - 4.8X

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

INDUSTRIAL P-V-F FIRMS -- SALES UNDER $4,000,000

	TYPICAL	RANGE OF COMMON EXPERIENCE
Overall Performance		
Net Profit After Tax to Net Worth	6.44%	-4.34 - 14.76%
Total Assets to Net Worth	1.98X	1.41 - 2.70X
Net Profit After Tax to Total Assets	2.54%	-3.36 - 7.18%
Net Sales to Total Assets	2.57X	2.01 - 3.02X
Net Profit After Tax to Net Sales	1.30%	-1.60 - 2.90%
Net Profit Before Tax to Total Assets	1.92%	-3.99 - 7.67%
EBIT to Total Assets	3.96%	-2.51 - 12.26%
Sales Analysis		
Net Sales ($000)	$2,550	$1,360 - 3,318
Percent Sales Change from Prior Year	-9.12%	-16.31 - 8.04%
Sales Mix:		
Direct Sales	13.8%	2.3 - 14.9%
Warehouse Sales - Counter	14.3%	0.2 - 32.5%
Warehouse Sales - Delivery	71.9%	54.9 - 88.4%
TOTAL SALES	100.0%	100.0 - 100.0%
Product Sales Mix		
Plumbing Supplies & Equipment	5.3%	0.0 - 11.3%
Heating & Cooling Supplies & Equipment	1.1%	0.0 - 0.0%
Industrial P-V-F (Pipes-Valves-Fittings)	85.3%	77.3 - 100.0%
Other Industrial Supplies & Equipment	4.6%	0.0 - 10.0%
Other Products	3.7%	0.0 - 5.0%
TOTAL SALES	100.0%	100.0 - 100.0%
Gross Margin		
Gross Margin on Net Sales	25.6%	24.2 - 30.0%
Gross Margin on Direct Shipments	13.6%	7.4 - 22.6%
Gross Margin on Warehouse Sales	28.4%	27.4 - 31.2%
Asset and Financial Management		
Current Asset Turn (Sales/Current Assets)	2.99X	2.37 - 3.52X
Total Debt to Net Worth	98.0%	41.1 - 170.3%
Current Debt to Net Worth	76.2%	21.4 - 157.9%
Current Assets to Current Debt	2.40X	1.55 - 5.88X
Current Assets Minus Inventory/Curr Debt	1.09X	0.52 - 2.17X
Invoice/Transaction Data		
Billing Lines Per Invoice	6.0	4.0 - 10.0
Average Invoice Size	$217	$90 - 459
Average Billing Line	$42.34	$9.86 - 124.60

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

INDUSTRIAL P-V-F FIRMS -- SALES UNDER $4,000,000

	TYPICAL	RANGE OF COMMON EXPERIENCE
Personnel Productivity		
Sales Per Employee	$143,019	$120,622 - 203,497
Gross Margin Per Employee	$36,098	$29,999 - 48,270
Average Compensation Per Employee	$20,829	$15,599 - 23,792
Average Fringe Benefits Per Employee	$3,515	$2,183 - 5,511
Compensation & Fringes Per Employee	$24,224	$18,931 - 29,677
Payroll to Net Sales	13.6%	12.3 - 15.6%
Fringe Benefits to Net Sales	2.2%	1.1 - 3.7%
Payroll & Fringes to Net Sales	15.5%	13.8 - 19.0%
Payroll to Gross Margin	52.3%	48.5 - 56.2%
Fringe Benefits to Gross Margin	8.5%	5.0 - 13.9%
Payroll & Fringes to Gross Margin	60.7%	53.0 - 66.8%
Inventory Management		
Cost of Whse Goods Sold to Ave Inventory	2.60X	1.94 - 3.29X
No. of Days Average Inventory Carried	142 Days	111 - 188 Days
Total Cost of Goods Sold to Ave Inventory	3.62X	2.84 - 4.29X
Whse Gross Margin Return on Ave Inventory	105%	82 - 127%
Turn & Earn Profitability Index	66%	48 - 93%
Percent of Firms on LIFO	44.44%	
Accounts Receivable		
Average Collection Period	40 Days	31 - 45 Days
Gross Margin Return on Receivables	245%	228 - 257%
Aging of Receivable Dollars:		
Current	66.4%	60.3 - 80.5%
1-30 Days Past Due	16.7%	3.3 - 23.9%
31-60 Days Past Due	8.4%	1.7 - 17.0%
61-90 Days Past Due	3.8%	0.9 - 5.6%
Over 90 Days Past Due	4.7%	0.0 - 7.9%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current	$867	$715 - 996
1-30 Days Past Due	$526	$404 - 785
31-60 Days Past Due	$539	$377 - 900
61-90 Days Past Due	$660	$274 - 968
Over 90 Days Past Due	$812	$629 - 2,587
Total	$829	$636 - 1,438
Aging of Receivable Accounts:		
Current	55.2%	40.8 - 80.0%
1-30 Days Past Due	22.1%	10.2 - 27.5%
31-60 Days Past Due	10.0%	4.1 - 14.8%
61-90 Days Past Due	4.8%	1.5 - 8.9%
Over 90 Days Past Due	7.9%	0.0 - 8.9%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

INDUSTRIAL P-V-F FIRMS -- SALES UNDER $4,000,000

	TYPICAL	RANGE OF COMMON EXPERIENCE
Income Statement		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	74.6%	70.0 - 75.8%
Gross Margin	25.6%	24.2 - 30.0%
Operating Expenses:		
Selling Expenses	6.9%	5.3 - 10.6%
Delivery Expenses	2.1%	1.6 - 2.6%
Warehouse Expenses	2.0%	0.9 - 4.1%
General & Administrative Expenses	10.5%	8.9 - 12.4%
Occupancy Expenses	1.1%	0.0 - 2.5%
Other Operating Expenses	0.0%	0.0 - 0.3%
Total Operating Expenses	24.6%	22.7 - 26.6%
Net Operating Profit	1.1%	-0.6 - 3.9%
Non-Operating Income	0.8%	0.3 - 2.1%
Non-Operating Expenses	1.9%	1.4 - 3.9%
Net Profit Before Tax	0.3%	-2.5 - 1.8%
Net Profit After Tax	1.3%	-1.6 - 2.9%
Operating Expense Control		
Total Operating Expense to Net Sales	24.6%	22.7 - 26.6%
Total Operating Expense to Gross Margin	96.3%	82.8 - 102.7%
Non-People Expense to Net Sales	9.2%	5.4 - 9.9%
Non-People Expense to Gross Margin	31.5%	24.6 - 37.4%
Interest Expense		
Interest Expense to Net Sales	1.3%	0.5 - 1.7%
Times Interest Earned	1.9X	-0.6 - 2.8X

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

INDUSTRIAL P-V-F FIRMS -- SALES $4,000,000 TO $12,000,000

	TYPICAL	RANGE OF COMMON EXPERIENCE
Overall Performance		
Net Profit After Tax to Net Worth	0.33%	-6.04 - 3.46%
Total Assets to Net Worth	1.63X	1.30 - 3.25X
Net Profit After Tax to Total Assets	0.28%	-2.78 - 2.86%
Net Sales to Total Assets	2.65X	2.21 - 4.28X
Net Profit After Tax to Net Sales	0.10%	-0.80 - 0.90%
Net Profit Before Tax to Total Assets	0.60%	-2.00 - 3.85%
EBIT to Total Assets	4.53%	-0.10 - 6.97%
Sales Analysis		
Net Sales($000)	$6,595	$4,672 - 8,671
Percent Sales Change from Prior Year	-11.66%	-17.51 - -2.39%
Sales Mix:		
Direct Sales	14.2%	3.3 - 26.0%
Warehouse Sales - Counter	2.6%	0.2 - 2.6%
Warehouse Sales - Delivery	83.2%	70.3 - 96.0%
TOTAL SALES	100.0%	100.0 - 100.0%
Product Sales Mix		
Plumbing Supplies & Equipment	7.6%	0.0 - 15.0%
Heating & Cooling Supplies & Equipment	2.9%	0.0 - 0.0%
Industrial P-V-F (Pipes-Valves-Fittings)	83.1%	65.0 - 100.0%
Other Industrial Supplies & Equipment	4.2%	0.0 - 7.8%
Other Products	2.3%	0.0 - 0.0%
TOTAL SALES	100.0%	100.0 - 100.0%
Gross Margin		
Gross Margin on Net Sales	23.0%	18.6 - 26.5%
Gross Margin on Direct Shipments	11.3%	8.0 - 21.1%
Gross Margin on Warehouse Sales	25.9%	20.4 - 29.4%
Asset and Financial Management		
Current Asset Turn (Sales/Current Assets)	3.71X	2.44 - 5.18X
Total Debt to Net Worth	62.8%	30.5 - 224.7%
Current Debt to Net Worth	55.8%	29.1 - 184.7%
Current Assets to Current Debt	2.49X	1.65 - 4.11X
Current Assets Minus Inventory/Curr Debt	1.62X	0.64 - 1.91X
Invoice/Transaction Data		
Billing Lines Per Invoice	4.5	4.0 - 7.5
Average Invoice Size	$391	$245 - 644
Average Billing Line	$46.94	$44.45 - 145.56

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

INDUSTRIAL P-V-F FIRMS -- SALES $4,000,000 TO $12,000,000

	TYPICAL	RANGE OF COMMON EXPERIENCE
Personnel Productivity		
Sales Per Employee	$202,899	$165,954 - 245,935
Gross Margin Per Employee	$41,028	$35,194 - 60,714
Average Compensation Per Employee	$23,073	$20,750 - 30,179
Average Fringe Benefits Per Employee	$3,417	$3,209 - 5,439
Compensation & Fringes Per Employee	$28,675	$23,958 - 33,412
Payroll to Net Sales	11.5%	9.3 - 14.8%
Fringe Benefits to Net Sales	1.8%	1.5 - 2.6%
Payroll & Fringes to Net Sales	13.9%	10.8 - 16.4%
Payroll to Gross Margin	54.9%	50.0 - 59.3%
Fringe Benefits to Gross Margin	8.8%	6.3 - 10.4%
Payroll & Fringes to Gross Margin	64.0%	57.7 - 73.4%
Inventory Management		
Cost of Whse Goods Sold to Ave Inventory	3.46X	2.12 - 5.84X
No. of Days Average Inventory Carried	105 Days	64 - 172 Days
Total Cost of Goods Sold to Ave Inventory	4.56X	2.38 - 6.83X
Whse Gross Margin Return on Ave Inventory	97%	79 - 144%
Turn & Earn Profitability Index	77%	59 - 116%
Percent of Firms on LIFO	66.67%	
Accounts Receivable		
Average Collection Period	35 Days	24 - 44 Days
Gross Margin Return on Receivables	238%	195 - 310%
Aging of Receivable Dollars:		
Current	54.0%	45.6 - 65.7%
1-30 Days Past Due	23.1%	13.6 - 27.8%
31-60 Days Past Due	9.2%	4.8 - 12.6%
61-90 Days Past Due	6.6%	1.9 - 10.2%
Over 90 Days Past Due	7.1%	0.0 - 11.2%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current	$1,712	$1,026 - 2,314
1-30 Days Past Due	$1,567	$620 - 3,151
31-60 Days Past Due	$2,222	$635 - 3,478
61-90 Days Past Due	$1,698	$894 - 2,740
Over 90 Days Past Due	$2,506	Insufficient Data
Total	$1,762	$871 - 2,608
Aging of Receivable Accounts:		
Current	59.0%	49.8 - 63.3%
1-30 Days Past Due	23.2%	19.5 - 31.4%
31-60 Days Past Due	8.9%	7.8 - 12.2%
61-90 Days Past Due	4.7%	4.1 - 6.5%
Over 90 Days Past Due	4.1%	2.2 - 7.7%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

INDUSTRIAL P-V-F FIRMS -- SALES $4,000,000 TO $12,000,000

	TYPICAL	RANGE OF COMMON EXPERIENCE
Income Statement		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	77.7%	73.5 - 81.4%
Gross Margin	23.0%	18.6 - 26.5%
Operating Expenses:		
Selling Expenses	7.6%	4.3 - 10.9%
Delivery Expenses	1.9%	0.9 - 2.5%
Warehouse Expenses	2.3%	1.6 - 3.7%
General & Administrative Expenses	6.8%	5.1 - 9.9%
Occupancy Expenses	1.3%	0.7 - 2.2%
Other Operating Expenses	0.0%	0.0 - 1.4%
Total Operating Expenses	22.0%	17.1 - 26.1%
Net Operating Profit	0.6%	-0.2 - 2.2%
Non-Operating Income	1.2%	0.5 - 1.5%
Non-Operating Expenses	1.5%	0.3 - 3.0%
Net Profit Before Tax	0.1%	-0.9 - 1.1%
Net Profit After Tax	0.1%	-0.8 - 0.9%
Operating Expense Control		
Total Operating Expense to Net Sales	22.0%	17.1 - 26.1%
Total Operating Expense to Gross Margin	96.8%	91.4 - 100.7%
Non-People Expense to Net Sales	7.1%	5.9 - 8.6%
Non-People Expense to Gross Margin	33.1%	25.0 - 36.2%
Interest Expense		
Interest Expense to Net Sales	1.0%	0.2 - 1.7%
Times Interest Earned	1.3X	0.0 - 7.9X

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

INDUSTRIAL P-V-F FIRMS -- SALES OVER $12,000,000

	TYPICAL	RANGE OF COMMON EXPERIENCE
Overall Performance		
Net Profit After Tax to Net Worth	3.20%	-0.28 - 6.53%
Total Assets to Net Worth	1.80X	1.34 - 2.06X
Net Profit After Tax to Total Assets	1.96%	-0.15 - 3.90%
Net Sales to Total Assets	2.42X	1.94 - 2.85X
Net Profit After Tax to Net Sales	1.00%	0.00 - 1.60%
Net Profit Before Tax to Total Assets	3.57%	0.41 - 7.46%
EBIT to Total Assets	5.54%	4.20 - 10.51%
Sales Analysis		
Net Sales($000)	$21,796	$15,131 - 30,588
Percent Sales Change from Prior Year	-12.69%	-16.25 - -4.57%
Sales Mix:		
Direct Sales	19.7%	10.1 - 23.3%
Warehouse Sales - Counter	4.1%	0.0 - 9.9%
Warehouse Sales - Delivery	76.2%	64.3 - 88.3%
TOTAL SALES	100.0%	100.0 - 100.0%
Product Sales Mix		
Plumbing Supplies & Equipment	9.0%	0.0 - 16.5%
Heating & Cooling Supplies & Equipment	3.0%	0.0 - 4.9%
Industrial P-V-F (Pipes-Valves-Fittings)	81.0%	65.5 - 96.0%
Other Industrial Supplies & Equipment	4.1%	0.0 - 7.5%
Other Products	2.9%	0.0 - 0.5%
TOTAL SALES	100.0%	100.0 - 100.0%
Gross Margin		
Gross Margin on Net Sales	21.3%	19.0 - 24.5%
Gross Margin on Direct Shipments	11.0%	10.0 - 13.7%
Gross Margin on Warehouse Sales	23.3%	18.9 - 25.5%
Asset and Financial Management		
Current Asset Turn (Sales/Current Assets)	2.89X	2.24 - 3.43X
Total Debt to Net Worth	79.9%	34.1 - 106.1%
Current Debt to Net Worth	45.6%	28.3 - 65.4%
Current Assets to Current Debt	3.09X	2.29 - 4.47X
Current Assets Minus Inventory/Curr Debt	1.30X	0.94 - 2.11X
Invoice/Transaction Data		
Billing Lines Per Invoice	5.0	3.0 - 5.0
Average Invoice Size	$368	$283 - 430
Average Billing Line	$84.31	$65.14 - 129.89

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

INDUSTRIAL P-V-F FIRMS -- SALES OVER $12,000,000

	TYPICAL	RANGE OF COMMON EXPERIENCE
Personnel Productivity		
Sales Per Employee	$254,896	$210,887 - 273,184
Gross Margin Per Employee	$49,280	$45,396 - 59,918
Average Compensation Per Employee	$23,100	$20,437 - 27,601
Average Fringe Benefits Per Employee	$4,610	$3,079 - 6,665
Compensation & Fringes Per Employee	$27,395	$24,152 - 34,914
Payroll to Net Sales	9.4%	8.2 - 11.6%
Fringe Benefits to Net Sales	1.8%	1.5 - 2.5%
Payroll & Fringes to Net Sales	11.1%	10.0 - 13.5%
Payroll to Gross Margin	46.5%	44.0 - 51.8%
Fringe Benefits to Gross Margin	9.6%	7.7 - 10.7%
Payroll & Fringes to Gross Margin	55.4%	54.2 - 62.0%
Inventory Management		
Cost of Whse Goods Sold to Ave Inventory	2.65X	2.21 - 3.27X
No. of Days Average Inventory Carried	138 Days	112 - 165 Days
Total Cost of Goods Sold to Ave Inventory	3.45X	2.73 - 4.44X
Whse Gross Margin Return on Ave Inventory	81%	69 - 103%
Turn & Earn Profitability Index	59%	50 - 81%
Percent of Firms on LIFO	92.31%	
Accounts Receivable		
Average Collection Period	40 Days	35 - 45 Days
Gross Margin Return on Receivables	209%	165 - 222%
Aging of Receivable Dollars:		
Current	60.3%	49.5 - 73.5%
1-30 Days Past Due	22.7%	17.5 - 23.5%
31-60 Days Past Due	7.4%	2.8 - 9.5%
61-90 Days Past Due	3.7%	1.6 - 6.6%
Over 90 Days Past Due	6.0%	2.2 - 8.7%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current	$2,456	$1,668 - 2,849
1-30 Days Past Due	$2,493	$1,003 - 5,169
31-60 Days Past Due	$2,437	$584 - 5,236
61-90 Days Past Due	$1,179	Insufficient Data
Over 90 Days Past Due	$1,589	Insufficient Data
Total	$2,012	$1,561 - 3,406
Aging of Receivable Accounts:		
Current	52.1%	Insufficient Data
1-30 Days Past Due	28.6%	Insufficient Data
31-60 Days Past Due	10.8%	Insufficient Data
61-90 Days Past Due	4.6%	Insufficient Data
Over 90 Days Past Due	4.0%	Insufficient Data
Total	100.0%	Insufficient Data

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

INDUSTRIAL P-V-F FIRMS -- SALES OVER $12,000,000

	TYPICAL	RANGE OF COMMON EXPERIENCE
Income Statement		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	79.6%	75.5 - 81.0%
Gross Margin	21.3%	19.0 - 24.5%
Operating Expenses:		
Selling Expenses	5.7%	5.3 - 7.4%
Delivery Expenses	1.4%	0.8 - 2.5%
Warehouse Expenses	2.2%	1.8 - 2.8%
General & Administrative Expenses	6.5%	5.4 - 8.2%
Occupancy Expenses	1.4%	1.0 - 1.7%
Other Operating Expenses	0.0%	0.0 - 0.4%
Total Operating Expenses	18.2%	16.6 - 21.4%
Net Operating Profit	2.2%	0.8 - 2.7%
Non-Operating Income	1.5%	1.0 - 2.1%
Non-Operating Expenses	2.1%	1.3 - 2.7%
Net Profit Before Tax	1.9%	0.2 - 2.5%
Net Profit After Tax	1.0%	0.0 - 1.6%
Operating Expense Control		
Total Operating Expense to Net Sales	18.2%	16.6 - 21.4%
Total Operating Expense to Gross Margin	91.2%	86.4 - 95.3%
Non-People Expense to Net Sales	6.5%	5.8 - 7.7%
Non-People Expense to Gross Margin	33.1%	27.7 - 39.5%
Interest Expense		
Interest Expense to Net Sales	0.9%	0.5 - 1.8%
Times Interest Earned	2.3X	1.2 - 5.3X

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

HIGH PROFIT INDUSTRIAL P-V-F FIRMS

	TYPICAL	RANGE OF COMMON EXPERIENCE
Overall Performance		
Net Profit After Tax to Net Worth	8.94%	3.87 - 15.62%
Total Assets to Net Worth	1.59X	1.29 - 2.25X
Net Profit After Tax to Total Assets	3.98%	2.55 - 7.71%
Net Sales to Total Assets	2.52X	2.02 - 3.57X
Net Profit After Tax to Net Sales	1.50%	1.10 - 3.10%
Net Profit Before Tax to Total Assets	4.87%	3.78 - 12.42%
EBIT to Total Assets	8.78%	5.03 - 13.58%
Sales Analysis		
Net Sales($000)	$4,584	$2,891 - 17,899
Percent Sales Change from Prior Year	-9.42%	-13.69 - 15.50%
Sales Mix:		
Direct Sales	19.7%	8.2 - 25.9%
Warehouse Sales - Counter	6.7%	0.0 - 12.8%
Warehouse Sales - Delivery	73.6%	60.8 - 87.3%
TOTAL SALES	100.0%	100.0 - 100.0%
Product Sales Mix		
Plumbing Supplies & Equipment	6.8%	0.0 - 11.0%
Heating & Cooling Supplies & Equipment	3.3%	0.0 - 4.0%
Industrial P-V-F (Pipes-Valves-Fittings)	83.4%	68.0 - 100.0%
Other Industrial Supplies & Equipment	3.0%	0.0 - 5.0%
Other Products	3.5%	0.0 - 0.0%
TOTAL SALES	100.0%	100.0 - 100.0%
Gross Margin		
Gross Margin on Net Sales	23.8%	20.2 - 27.9%
Gross Margin on Direct Shipments	12.5%	10.0 - 20.0%
Gross Margin on Warehouse Sales	26.8%	22.3 - 32.3%
Asset and Financial Management		
Current Asset Turn (Sales/Current Assets)	3.20X	2.32 - 4.04X
Total Debt to Net Worth	58.7%	29.1 - 124.8%
Current Debt to Net Worth	39.6%	27.7 - 112.5%
Current Assets to Current Debt	3.27X	1.79 - 4.52X
Current Assets Minus Inventory/Curr Debt	1.62X	0.92 - 2.13X
Invoice/Transaction Data		
Billing Lines Per Invoice	5.0	4.0 - 8.0
Average Invoice Size	$372	$256 - 647
Average Billing Line	$65.22	$46.50 - 120.52

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

HIGH PROFIT INDUSTRIAL P-V-F FIRMS

	TYPICAL	RANGE OF COMMON EXPERIENCE
Personnel Productivity		
Sales Per Employee	$212,756	$180,454 - 266,113
Gross Margin Per Employee	$51,324	$39,949 - 60,213
Average Compensation Per Employee	$24,368	$18,541 - 28,296
Average Fringe Benefits Per Employee	$3,233	$2,444 - 6,056
Compensation & Fringes Per Employee	$28,717	$20,662 - 33,259
Payroll to Net Sales	11.9%	9.0 - 13.1%
Fringe Benefits to Net Sales	1.5%	1.1 - 2.2%
Payroll & Fringes to Net Sales	13.2%	10.3 - 15.0%
Payroll to Gross Margin	49.7%	43.0 - 54.7%
Fringe Benefits to Gross Margin	6.8%	5.1 - 9.5%
Payroll & Fringes to Gross Margin	55.2%	49.1 - 64.0%
Inventory Management		
Cost of Whse Goods Sold to Ave Inventory	2.65X	2.21 - 3.78X
No. of Days Average Inventory Carried	138 Days	97 - 165 Days
Total Cost of Goods Sold to Ave Inventory	3.65X	2.60 - 5.78X
Whse Gross Margin Return on Ave Inventory	98%	88 - 124%
Turn & Earn Profitability Index	78%	63 - 84%
Percent of Firms on LIFO	56.52%	
Accounts Receivable		
Average Collection Period	40 Days	34 - 45 Days
Gross Margin Return on Receivables	215%	204 - 242%
Aging of Receivable Dollars:		
Current	62.3%	48.3 - 73.4%
1-30 Days Past Due	19.4%	11.7 - 26.6%
31-60 Days Past Due	7.4%	3.2 - 9.8%
61-90 Days Past Due	3.5%	1.1 - 6.0%
Over 90 Days Past Due	7.3%	2.3 - 12.1%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current	$1,480	$876 - 1,847
1-30 Days Past Due	$1,225	$554 - 3,831
31-60 Days Past Due	$682	$547 - 2,437
61-90 Days Past Due	$987	$768 - 2,610
Over 90 Days Past Due	$3,568	$2,148 - 6,243
Total	$1,446	$799 - 2,308
Aging of Receivable Accounts:		
Current	65.0%	54.6 - 76.0%
1-30 Days Past Due	20.7%	15.2 - 27.5%
31-60 Days Past Due	7.5%	6.8 - 9.4%
61-90 Days Past Due	3.5%	1.5 - 4.9%
Over 90 Days Past Due	3.4%	0.7 - 5.7%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

HIGH PROFIT INDUSTRIAL P-V-F FIRMS

	TYPICAL	RANGE OF COMMON EXPERIENCE
Income Statement		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	77.1%	72.1 - 79.8%
Gross Margin	23.8%	20.2 - 27.9%
Operating Expenses:		
Selling Expenses	5.9%	5.0 - 11.1%
Delivery Expenses	1.5%	0.5 - 2.6%
Warehouse Expenses	1.9%	0.7 - 2.7%
General & Administrative Expenses	7.5%	5.0 - 9.0%
Occupancy Expenses	1.3%	1.1 - 1.7%
Other Operating Expenses	0.0%	0.0 - 0.6%
Total Operating Expenses	20.5%	17.9 - 23.2%
Net Operating Profit	2.2%	0.6 - 4.0%
Non-Operating Income	1.4%	0.8 - 1.9%
Non-Operating Expenses	1.3%	0.5 - 2.0%
Net Profit Before Tax	2.0%	1.4 - 4.2%
Net Profit After Tax	1.5%	1.1 - 3.1%
Operating Expense Control		
Total Operating Expense to Net Sales	20.5%	17.9 - 23.2%
Total Operating Expense to Gross Margin	90.3%	81.8 - 96.8%
Non-People Expense to Net Sales	6.9%	5.6 - 9.9%
Non-People Expense to Gross Margin	34.0%	25.4 - 37.4%
Interest Expense		
Interest Expense to Net Sales	0.7%	0.2 - 1.4%
Times Interest Earned	3.6X	2.2 - 10.7X

Plumbing Supplies & Equipment

and Industrial P-V-F Firms

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT & INDUSTRIAL P-V-F FIRMS

	TYPICAL	RANGE OF COMMON EXPERIENCE
Overall Performance		
Net Profit After Tax to Net Worth	5.91%	0.88 - 10.79%
Total Assets to Net Worth	1.42X	1.32 - 1.96X
Net Profit After Tax to Total Assets	3.86%	0.57 - 6.33%
Net Sales to Total Assets	2.16X	1.88 - 2.77X
Net Profit After Tax to Net Sales	1.80%	0.30 - 2.60%
Net Profit Before Tax to Total Assets	5.10%	1.03 - 9.28%
EBIT to Total Assets	6.55%	2.08 - 11.73%
Sales Analysis		
Net Sales($000)	$4,204	$2,830 - 7,450
Percent Sales Change from Prior Year	-3.71%	-12.83 - 0.39%
Sales Mix:		
Direct Sales	10.7%	2.4 - 16.8%
Warehouse Sales - Counter	29.3%	9.8 - 37.7%
Warehouse Sales - Delivery	60.0%	48.6 - 75.3%
TOTAL SALES	100.0%	100.0 - 100.0%
Product Sales Mix		
Plumbing Supplies & Equipment	41.7%	35.0 - 50.0%
Heating & Cooling Supplies & Equipment	20.7%	7.3 - 30.0%
Industrial P-V-F (Pipes-Valves-Fittings)	26.7%	18.8 - 40.0%
Other Industrial Supplies & Equipment	4.3%	0.0 - 5.0%
Other Products	6.6%	0.0 - 10.0%
TOTAL SALES	100.0%	100.0 - 100.0%
Gross Margin		
Gross Margin on Net Sales	25.2%	22.8 - 27.7%
Gross Margin on Direct Shipments	12.0%	8.0 - 15.0%
Gross Margin on Warehouse Sales	27.4%	23.8 - 29.7%
Asset and Financial Management		
Current Asset Turn (Sales/Current Assets)	2.66X	2.22 - 3.28X
Total Debt to Net Worth	42.5%	32.1 - 96.6%
Current Debt to Net Worth	36.1%	23.2 - 67.3%
Current Assets to Current Debt	3.34X	2.42 - 4.63X
Current Assets Minus Inventory/Curr Debt	1.53X	0.91 - 2.07X
Invoice/Transaction Data		
Billing Lines Per Invoice	5.0	4.0 - 7.0
Average Invoice Size	$151	$95 - 224
Average Billing Line	$28.83	$13.80 - 48.56

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT & INDUSTRIAL P-V-F FIRMS

	TYPICAL	RANGE OF COMMON EXPERIENCE
Personnel Productivity		
Sales Per Employee	$152,807	$129,722 - 189,480
Gross Margin Per Employee	$39,137	$33,778 - 46,802
Average Compensation Per Employee	$19,669	$16,890 - 23,133
Average Fringe Benefits Per Employee	$3,673	$3,093 - 4,884
Compensation & Fringes Per Employee	$23,632	$19,923 - 27,046
Payroll to Net Sales	12.9%	10.6 - 14.9%
Fringe Benefits to Net Sales	2.4%	2.0 - 3.0%
Payroll & Fringes to Net Sales	15.3%	11.4 - 17.3%
Payroll to Gross Margin	49.3%	45.0 - 56.2%
Fringe Benefits to Gross Margin	9.5%	8.0 - 12.0%
Payroll & Fringes to Gross Margin	57.9%	52.6 - 65.7%
Inventory Management		
Cost of Whse Goods Sold to Ave Inventory	2.79X	2.26 - 3.61X
No. of Days Average Inventory Carried	131 Days	101 - 162 Days
Total Cost of Goods Sold to Ave Inventory	3.56X	2.64 - 5.23X
Whse Gross Margin Return on Ave Inventory	106%	89 - 127%
Turn & Earn Profitability Index	75%	66 - 94%
Percent of Firms on LIFO	45.28%	
Accounts Receivable		
Average Collection Period	46 Days	40 - 55 Days
Gross Margin Return on Receivables	193%	172 - 220%
Aging of Receivable Dollars:		
Current	62.3%	52.3 - 73.5%
1-30 Days Past Due	14.7%	5.8 - 19.0%
31-60 Days Past Due	8.3%	4.9 - 12.3%
61-90 Days Past Due	5.5%	1.9 - 8.5%
Over 90 Days Past Due	8.6%	2.5 - 12.5%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current	$829	$642 - 1,324
1-30 Days Past Due	$874	$585 - 1,396
31-60 Days Past Due	$880	$362 - 1,236
61-90 Days Past Due	$884	$432 - 1,545
Over 90 Days Past Due	$1,258	$690 - 2,844
Total	$795	$647 - 1,502
Aging of Receivable Accounts:		
Current	61.6%	49.6 - 74.7%
1-30 Days Past Due	17.7%	10.7 - 20.9%
31-60 Days Past Due	10.2%	4.8 - 12.5%
61-90 Days Past Due	4.7%	2.4 - 7.5%
Over 90 Days Past Due	5.8%	2.1 - 8.1%
Total	100.0%	100.0 - 100.0%

PLUMBING SUPPLIES & EQUIPMENT & INDUSTRIAL P-V-F FIRMS

	TYPICAL	RANGE OF COMMON EXPERIENCE
Income Statement		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	74.6%	72.3 - 77.2%
Gross Margin	25.2%	22.8 - 27.7%
Operating Expenses:		
Selling Expenses	6.0%	4.4 - 7.3%
Delivery Expenses	1.8%	0.5 - 2.6%
Warehouse Expenses	2.8%	1.9 - 4.3%
General & Administrative Expenses	10.2%	7.6 - 11.9%
Occupancy Expenses	1.5%	0.8 - 2.9%
Other Operating Expenses	0.0%	0.0 - 0.6%
Total Operating Expenses	24.7%	20.9 - 27.4%
Net Operating Profit	1.6%	-0.2 - 3.1%
Non-Operating Income	2.0%	1.4 - 2.8%
Non-Operating Expenses	1.5%	0.8 - 2.6%
Net Profit Before Tax	2.1%	0.2 - 3.9%
Net Profit After Tax	1.8%	0.3 - 2.6%
Operating Expense Control		
Total Operating Expense to Net Sales	24.7%	20.9 - 27.4%
Total Operating Expense to Gross Margin	93.7%	85.7 - 100.6%
Non-People Expense to Net Sales	7.9%	6.4 - 9.8%
Non-People Expense to Gross Margin	32.7%	26.5 - 39.6%
Interest Expense		
Interest Expense to Net Sales	0.6%	0.3 - 1.5%
Times Interest Earned	3.4X	1.3 - 11.2X

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & INDUSTRIAL P-V-F FIRMS -- SALES UNDER $3,000,000

	TYPICAL	RANGE OF COMMON EXPERIENCE
Overall Performance		
Net Profit After Tax to Net Worth	4.13%	-1.86 - 0.85%
Total Assets to Net Worth	1.32X	1.22 - 1.56X
Net Profit After Tax to Total Assets	2.04%	-1.09 - 5.60%
Net Sales to Total Assets	2.15X	1.75 - 2.78X
Net Profit After Tax to Net Sales	0.70%	-0.50 - 2.30%
Net Profit Before Tax to Total Assets	2.59%	-0.70 - 7.85%
EBIT to Total Assets	6.08%	0.49 - 8.64%
Sales Analysis		
Net Sales($000)	$1,895	$1,451 - 2,310
Percent Sales Change from Prior Year	-4.54%	-14.92 - 0.09%
Sales Mix:		
Direct Sales	2.8%	0.0 - 4.0%
Warehouse Sales - Counter	40.2%	0.0 - 91.8%
Warehouse Sales - Delivery	57.0%	5.0 - 95.9%
TOTAL SALES	100.0%	100.0 - 100.0%
Product Sales Mix		
Plumbing Supplies & Equipment	44.2%	40.0 - 50.0%
Heating & Cooling Supplies & Equipment	22.2%	11.5 - 30.0%
Industrial P-V-F (Pipes-Valves-Fittings)	21.7%	11.0 - 34.0%
Other Industrial Supplies & Equipment	2.6%	0.0 - 4.0%
Other Products	9.3%	0.0 - 10.0%
TOTAL SALES	100.0%	100.0 - 100.0%
Gross Margin		
Gross Margin on Net Sales	26.1%	23.6 - 28.1%
Gross Margin on Direct Shipments	13.5%	10.0 - 23.1%
Gross Margin on Warehouse Sales	27.5%	23.2 - 30.1%
Asset and Financial Management		
Current Asset Turn (Sales/Current Assets)	2.80X	2.06 - 3.28X
Total Debt to Net Worth	32.2%	22.3 - 56.7%
Current Debt to Net Worth	24.8%	17.9 - 39.8%
Current Assets to Current Debt	4.39X	3.38 - 5.65X
Current Assets Minus Inventory/Curr Debt	1.72X	1.04 - 2.19X
Invoice/Transaction Data		
Billing Lines Per Invoice	5.8	3.8 - 8.5
Average Invoice Size	$84	$73 - 136
Average Billing Line	$13.87	$12.03 - 27.01

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & INDUSTRIAL P-V-F FIRMS -- SALES UNDER $3,000,000

	TYPICAL	RANGE OF COMMON EXPERIENCE
Personnel Productivity		
Sales Per Employee	$128,388	$106,174 - 158,413
Gross Margin Per Employee	$34,037	$30,592 - 38,567
Average Compensation Per Employee	$16,992	$14,231 - 19,910
Average Fringe Benefits Per Employee	$3,475	$2,749 - 7,582
Compensation & Fringes Per Employee	$20,861	$15,814 - 25,523
Payroll to Net Sales	12.9%	10.7 - 15.3%
Fringe Benefits to Net Sales	2.9%	2.3 - 4.3%
Payroll & Fringes to Net Sales	16.4%	12.7 - 19.2%
Payroll to Gross Margin	51.6%	47.6 - 58.6%
Fringe Benefits to Gross Margin	10.3%	9.0 - 17.2%
Payroll & Fringes to Gross Margin	62.3%	56.2 - 67.6%
Inventory Management		
Cost of Whse Goods Sold to Ave Inventory	2.19X	1.89 - 3.95X
No. of Days Average Inventory Carried	167 Days	94 - 194 Days
Total Cost of Goods Sold to Ave Inventory	3.44X	2.16 - 5.10X
Whse Gross Margin Return on Ave Inventory	95%	73 - 123%
Turn & Earn Profitability Index	74%	57 - 97%
Percent of Firms on LIFO	31.25%	
Accounts Receivable		
Average Collection Period	42 Days	38 - 48 Days
Gross Margin Return on Receivables	215%	195 - 258%
Aging of Receivable Dollars:		
Current	66.8%	53.8 - 74.0%
1-30 Days Past Due	11.6%	0.0 - 18.9%
31-60 Days Past Due	6.9%	3.5 - 11.4%
61-90 Days Past Due	3.1%	0.9 - 5.5%
Over 90 Days Past Due	11.5%	2.7 - 19.5%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current	$489	$330 - 716
1-30 Days Past Due	$695	$437 - 856
31-60 Days Past Due	$583	$255 - 1,237
61-90 Days Past Due	$465	$217 - 600
Over 90 Days Past Due	$800	$576 - 3,253
Total	$647	$356 - 702
Aging of Receivable Accounts:		
Current	70.9%	57.5 - 80.4%
1-30 Days Past Due	12.5%	6.1 - 19.7%
31-60 Days Past Due	7.9%	2.6 - 12.5%
61-90 Days Past Due	4.3%	1.9 - 7.7%
Over 90 Days Past Due	4.4%	1.8 - 6.4%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & INDUSTRIAL P-V-F FIRMS -- SALES UNDER $3,000,000

	TYPICAL	RANGE OF COMMON EXPERIENCE
Income Statement		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	74.5%	71.9 - 76.4%
Gross Margin	26.1%	23.6 - 28.1%
Operating Expenses:		
Selling Expenses	6.2%	5.8 - 7.9%
Delivery Expenses	2.1%	0.5 - 2.3%
Warehouse Expenses	2.6%	1.8 - 4.5%
General & Administrative Expenses	11.0%	7.6 - 15.2%
Occupancy Expenses	1.7%	0.3 - 2.9%
Other Operating Expenses	0.3%	0.0 - 2.5%
Total Operating Expenses	26.0%	21.5 - 29.7%
Net Operating Profit	1.0%	-0.2 - 1.9%
Non-Operating Income	2.2%	1.6 - 2.8%
Non-Operating Expenses	2.1%	1.5 - 2.9%
Net Profit Before Tax	0.8%	-1.1 - 2.8%
Net Profit After Tax	0.7%	-0.5 - 2.3%
Operating Expense Control		
Total Operating Expense to Net Sales	26.0%	21.5 - 29.7%
Total Operating Expense to Gross Margin	96.1%	92.7 - 100.7%
Non-People Expense to Net Sales	7.7%	6.4 - 9.2%
Non-People Expense to Gross Margin	30.7%	25.1 - 36.5%
Interest Expense		
Interest Expense to Net Sales	0.3%	0.2 - 0.9%
Times Interest Earned	3.1X	0.3 - 12.8X

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & INDUSTRIAL P-V-F FIRMS -- SALES $3,000,000 TO $7,000,000

	TYPICAL	RANGE OF COMMON EXPERIENCE
Overall Performance		
Net Profit After Tax to Net Worth	8.44%	3.10 - 11.44%
Total Assets to Net Worth	1.71X	1.39 - 2.39X
Net Profit After Tax to Total Assets	4.90%	1.98 - 7.28%
Net Sales to Total Assets	2.13X	1.88 - 3.04X
Net Profit After Tax to Net Sales	1.90%	0.80 - 3.30%
Net Profit Before Tax to Total Assets	6.57%	2.53 - 11.62%
EBIT to Total Assets	9.47%	3.98 - 13.00%
Sales Analysis		
Net Sales($000)	$4,453	$3,663 - 5,693
Percent Sales Change from Prior Year	-1.90%	-8.40 - 1.43%
Sales Mix:		
Direct Sales	8.1%	3.9 - 13.6%
Warehouse Sales - Counter	35.8%	17.8 - 48.8%
Warehouse Sales - Delivery	56.1%	38.4 - 75.0%
TOTAL SALES	100.0%	100.0 - 100.0%
Product Sales Mix		
Plumbing Supplies & Equipment	42.3%	36.9 - 50.0%
Heating & Cooling Supplies & Equipment	19.8%	5.0 - 31.3%
Industrial P-V-F (Pipes-Valves-Fittings)	24.9%	18.8 - 31.3%
Other Industrial Supplies & Equipment	6.9%	0.0 - 10.3%
Other Products	6.2%	0.0 - 10.0%
TOTAL SALES	100.0%	100.0 - 100.0%
Gross Margin		
Gross Margin on Net Sales	26.3%	23.5 - 29.5%
Gross Margin on Direct Shipments	10.0%	7.3 - 15.0%
Gross Margin on Warehouse Sales	29.5%	25.3 - 31.6%
Asset and Financial Management		
Current Asset Turn (Sales/Current Assets)	2.69X	2.28 - 3.37X
Total Debt to Net Worth	71.2%	38.6 - 139.0%
Current Debt to Net Worth	57.6%	33.5 - 94.6%
Current Assets to Current Debt	2.68X	2.08 - 3.46X
Current Assets Minus Inventory/Curr Debt	1.28X	0.77 - 1.92X
Invoice/Transaction Data		
Billing Lines Per Invoice	4.9	4.0 - 5.8
Average Invoice Size	$148	$98 - 205
Average Billing Line	$28.37	$16.87 - 43.02

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & INDUSTRIAL P-V-F FIRMS -- SALES $3,000,000 TO $7,000,000

	TYPICAL	RANGE OF COMMON EXPERIENCE
Personnel Productivity		
Sales Per Employee	$152,258	$135,444 - 177,678
Gross Margin Per Employee	$42,254	$34,601 - 46,802
Average Compensation Per Employee	$20,389	$17,568 - 25,303
Average Fringe Benefits Per Employee	$3,518	$3,106 - 4,414
Compensation & Fringes Per Employee	$23,249	$20,850 - 28,797
Payroll to Net Sales	14.0%	11.9 - 15.1%
Fringe Benefits to Net Sales	2.3%	1.8 - 2.8%
Payroll & Fringes to Net Sales	15.9%	11.2 - 17.6%
Payroll to Gross Margin	49.1%	44.2 - 53.7%
Fringe Benefits to Gross Margin	8.4%	7.3 - 10.9%
Payroll & Fringes to Gross Margin	57.3%	51.7 - 61.0%
Inventory Management		
Cost of Whse Goods Sold to Ave Inventory	3.01X	2.30 - 3.64X
No. of Days Average Inventory Carried	121 Days	100 - 158 Days
Total Cost of Goods Sold to Ave Inventory	3.41X	2.65 - 6.27X
Whse Gross Margin Return on Ave Inventory	116%	100 - 137%
Turn & Earn Profitability Index	82%	73 - 102%
Percent of Firms on LIFO	40.91%	
Accounts Receivable		
Average Collection Period	48 Days	41 - 60 Days
Gross Margin Return on Receivables	203%	165 - 223%
Aging of Receivable Dollars:		
Current	58.7%	52.3 - 75.1%
1-30 Days Past Due	18.0%	5.8 - 21.8%
31-60 Days Past Due	9.1%	4.6 - 15.0%
61-90 Days Past Due	6.1%	2.6 - 8.5%
Over 90 Days Past Due	8.1%	1.8 - 13.2%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current	$961	$786 - 1,374
1-30 Days Past Due	$823	$442 - 1,032
31-60 Days Past Due	$871	$242 - 994
61-90 Days Past Due	$952	$454 - 1,453
Over 90 Days Past Due	$1,148	$755 - 2,099
Total	$877	$698 - 1,050
Aging of Receivable Accounts:		
Current	51.4%	12.1 - 76.6%
1-30 Days Past Due	25.4%	12.1 - 33.7%
31-60 Days Past Due	13.6%	6.2 - 15.1%
61-90 Days Past Due	4.5%	2.6 - 6.9%
Over 90 Days Past Due	5.1%	2.3 - 7.7%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & INDUSTRIAL P-V-F FIRMS -- SALES $3,000,000 TO $7,000,000

	TYPICAL	RANGE OF COMMON EXPERIENCE
Income Statement		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	73.0%	70.5 - 76.5%
Gross Margin	26.3%	23.5 - 29.5%
Operating Expenses:		
Selling Expenses	5.8%	3.7 - 7.8%
Delivery Expenses	1.6%	0.3 - 2.8%
Warehouse Expenses	2.5%	1.5 - 4.0%
General & Administrative Expenses	10.1%	9.1 - 12.6%
Occupancy Expenses	1.5%	0.3 - 2.9%
Other Operating Expenses	0.0%	0.0 - 0.7%
Total Operating Expenses	25.3%	22.1 - 27.6%
Net Operating Profit	1.6%	0.7 - 4.6%
Non-Operating Income	2.2%	1.4 - 2.9%
Non-Operating Expenses	1.4%	0.7 - 2.4%
Net Profit Before Tax	2.6%	1.5 - 4.3%
Net Profit After Tax	1.9%	0.8 - 3.3%
Operating Expense Control		
Total Operating Expense to Net Sales	25.3%	22.1 - 27.6%
Total Operating Expense to Gross Margin	93.2%	83.4 - 97.7%
Non-People Expense to Net Sales	8.0%	6.3 - 10.0%
Non-People Expense to Gross Margin	30.9%	25.5 - 39.1%
Interest Expense		
Interest Expense to Net Sales	0.8%	0.2 - 2.0%
Times Interest Earned	3.5X	1.7 - 11.2X

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & INDUSTRIAL P-V-F FIRMS -- SALES OVER $7,000,000

	TYPICAL	RANGE OF COMMON EXPERIENCE
Overall Performance		
Net Profit After Tax to Net Worth	5.30%	-2.43 - 11.11%
Total Assets to Net Worth	1.37X	1.33 - 1.69X
Net Profit After Tax to Total Assets	4.11%	-1.82 - 6.54%
Net Sales to Total Assets	2.30X	1.88 - 2.62X
Net Profit After Tax to Net Sales	1.80%	-0.90 - 2.40%
Net Profit Before Tax to Total Assets	5.14%	-2.28 - 8.70%
EBIT to Total Assets	5.74%	-1.85 - 14.27%
Sales Analysis		
Net Sales ($000)	$10,262	$7,818 - 25,578
Percent Sales Change from Prior Year	-8.65%	-15.29 - -0.78%
Sales Mix:		
Direct Sales	17.1%	5.7 - 21.9%
Warehouse Sales - Counter	17.9%	8.1 - 25.5%
Warehouse Sales - Delivery	65.0%	49.3 - 76.1%
TOTAL SALES	100.0%	100.0 - 100.0%
Product Sales Mix		
Plumbing Supplies & Equipment	38.2%	32.7 - 50.0%
Heating & Cooling Supplies & Equipment	20.2%	5.0 - 30.0%
Industrial P-V-F (Pipes-Valves-Fittings)	34.9%	25.0 - 44.0%
Other Industrial Supplies & Equipment	2.3%	0.0 - 2.0%
Other Products	4.3%	0.0 - 7.0%
TOTAL SALES	100.0%	100.0 - 100.0%
Gross Margin		
Gross Margin on Net Sales	23.2%	20.2 - 25.7%
Gross Margin on Direct Shipments	11.4%	6.8 - 15.2%
Gross Margin on Warehouse Sales	25.9%	23.2 - 28.3%
Asset and Financial Management		
Current Asset Turn (Sales/Current Assets)	2.57X	2.28 - 3.31X
Total Debt to Net Worth	36.7%	33.1 - 69.0%
Current Debt to Net Worth	33.0%	31.7 - 53.4%
Current Assets to Current Debt	3.59X	2.64 - 4.08X
Current Assets Minus Inventory/Curr Debt	1.54X	1.15 - 2.03X
Invoice/Transaction Data		
Billing Lines Per Invoice	5.0	4.3 - 6.3
Average Invoice Size	$210	$155 - 250
Average Billing Line	$45.83	$31.77 - 57.74

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & INDUSTRIAL P-V-F FIRMS -- SALES OVER $7,000,000

	TYPICAL	RANGE OF COMMON EXPERIENCE
Personnel Productivity		
Sales Per Employee	$191,946	$150,042 - 228,503
Gross Margin Per Employee	$45,486	$35,924 - 50,834
Average Compensation Per Employee	$21,555	$17,295 - 25,047
Average Fringe Benefits Per Employee	$3,998	$3,126 - 5,132
Compensation & Fringes Per Employee	$25,554	$21,230 - 30,777
Payroll to Net Sales	11.8%	9.6 - 13.5%
Fringe Benefits to Net Sales	2.1%	1.2 - 2.9%
Payroll & Fringes to Net Sales	14.9%	10.6 - 16.0%
Payroll to Gross Margin	48.8%	44.7 - 58.4%
Fringe Benefits to Gross Margin	9.8%	5.7 - 11.3%
Payroll & Fringes to Gross Margin	59.1%	52.5 - 67.1%
Inventory Management		
Cost of Whse Goods Sold to Ave Inventory	2.91X	2.49 - 3.54X
No. of Days Average Inventory Carried	126 Days	105 - 147 Days
Total Cost of Goods Sold to Ave Inventory	4.06X	2.92 - 5.98X
Whse Gross Margin Return on Ave Inventory	93%	87 - 128%
Turn & Earn Profitability Index	70%	66 - 93%
Percent of Firms on LIFO	66.67%	
Accounts Receivable		
Average Collection Period	49 Days	40 - 60 Days
Gross Margin Return on Receivables	175%	153 - 190%
Aging of Receivable Dollars:		
Current	61.7%	51.3 - 67.9%
1-30 Days Past Due	14.3%	10.4 - 19.4%
31-60 Days Past Due	10.2%	7.0 - 12.3%
61-90 Days Past Due	7.4%	2.9 - 9.8%
Over 90 Days Past Due	6.3%	2.5 - 9.1%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current	$1,227	$671 - 1,787
1-30 Days Past Due	$1,486	$893 - 1,873
31-60 Days Past Due	$1,236	$597 - 1,575
61-90 Days Past Due	$1,618	$1,173 - 2,087
Over 90 Days Past Due	$1,948	$797 - 5,915
Total	$1,623	$733 - 1,761
Aging of Receivable Accounts:		
Current	61.4%	50.5 - 74.1%
1-30 Days Past Due	15.9%	12.2 - 18.9%
31-60 Days Past Due	9.4%	4.6 - 15.6%
61-90 Days Past Due	5.2%	2.5 - 9.6%
Over 90 Days Past Due	8.1%	1.7 - 12.0%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & INDUSTRIAL P-V-F FIRMS -- SALES OVER $7,000,000

	TYPICAL	RANGE OF COMMON EXPERIENCE
Income Statement		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	76.9%	74.3 - 79.8%
Gross Margin	23.2%	20.2 - 25.7%
Operating Expenses:		
Selling Expenses	5.4%	4.3 - 7.1%
Delivery Expenses	1.7%	0.5 - 2.3%
Warehouse Expenses	3.2%	2.5 - 4.4%
General & Administrative Expenses	8.7%	6.8 - 10.9%
Occupancy Expenses	1.5%	0.9 - 3.1%
Other Operating Expenses	0.0%	0.0 - 0.4%
Total Operating Expenses	22.3%	18.9 - 25.2%
Net Operating Profit	1.6%	-0.3 - 4.0%
Non-Operating Income	1.5%	0.1 - 2.6%
Non-Operating Expenses	1.1%	0.7 - 1.8%
Net Profit Before Tax	2.4%	-1.1 - 4.6%
Net Profit After Tax	1.8%	-0.9 - 2.4%
Operating Expense Control		
Total Operating Expense to Net Sales	22.3%	18.9 - 25.2%
Total Operating Expense to Gross Margin	92.0%	83.4 - 101.4%
Non-People Expense to Net Sales	7.8%	6.2 - 10.3%
Non-People Expense to Gross Margin	37.0%	26.8 - 40.8%
Interest Expense		
Interest Expense to Net Sales	0.6%	0.4 - 1.0%
Times Interest Earned	3.1X	-0.9 - 10.6X

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

HIGH PROFIT PLUMBING SUPPLIES & EQUIPMENT & INDUSTRIAL P-V-F FIRMS

	TYPICAL	RANGE OF COMMON EXPERIENCE
Overall Performance		
Net Profit After Tax to Net Worth	10.72%	6.87 - 12.62%
Total Assets to Net Worth	1.42X	1.35 - 1.94X
Net Profit After Tax to Total Assets	6.18%	4.90 - 8.46%
Net Sales to Total Assets	2.60X	1.99 - 3.14X
Net Profit After Tax to Net Sales	2.40%	1.90 - 3.90%
Net Profit Before Tax to Total Assets	9.16%	7.92 - 14.51%
EBIT to Total Assets	12.02%	9.97 - 16.63%
Sales Analysis		
Net Sales($000)	$4,544	$3,012 - 9,597
Percent Sales Change from Prior Year	-3.16%	-10.72 - 0.76%
Sales Mix:		
Direct Sales	14.0%	4.0 - 20.1%
Warehouse Sales - Counter	25.9%	11.5 - 35.9%
Warehouse Sales - Delivery	60.1%	50.0 - 68.7%
TOTAL SALES	100.0%	100.0 - 100.0%
Product Sales Mix		
Plumbing Supplies & Equipment	41.7%	35.0 - 50.0%
Heating & Cooling Supplies & Equipment	18.5%	5.0 - 30.0%
Industrial P-V-F (Pipes-Valves-Fittings)	28.8%	15.0 - 44.0%
Other Industrial Supplies & Equipment	5.5%	0.0 - 5.0%
Other Products	5.5%	0.0 - 10.0%
TOTAL SALES	100.0%	100.0 - 100.0%
Gross Margin		
Gross Margin on Net Sales	24.9%	21.7 - 28.6%
Gross Margin on Direct Shipments	12.0%	10.0 - 14.8%
Gross Margin on Warehouse Sales	26.4%	24.6 - 29.9%
Asset and Financial Management		
Current Asset Turn (Sales/Current Assets)	3.02X	2.50 - 3.67X
Total Debt to Net Worth	41.9%	34.9 - 94.2%
Current Debt to Net Worth	38.7%	24.8 - 76.4%
Current Assets to Current Debt	3.20X	2.23 - 4.39X
Current Assets Minus Inventory/Curr Debt	1.67X	1.01 - 2.23X
Invoice/Transaction Data		
Billing Lines Per Invoice	5.5	4.4 - 9.3
Average Invoice Size	$160	$99 - 241
Average Billing Line	$28.83	$12.80 - 49.27

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

HIGH PROFIT PLUMBING SUPPLIES & EQUIPMENT & INDUSTRIAL P-V-F FIRMS

	TYPICAL	RANGE OF COMMON EXPERIENCE
Personnel Productivity		
Sales Per Employee	$175,575	$148,256 - 219,214
Gross Margin Per Employee	$44,501	$38,339 - 49,394
Average Compensation Per Employee	$19,669	$16,890 - 24,906
Average Fringe Benefits Per Employee	$3,998	$3,344 - 5,310
Compensation & Fringes Per Employee	$24,084	$21,138 - 31,091
Payroll to Net Sales	12.1%	8.9 - 14.1%
Fringe Benefits to Net Sales	2.3%	1.7 - 3.5%
Payroll & Fringes to Net Sales	14.1%	10.1 - 16.8%
Payroll to Gross Margin	45.8%	42.1 - 50.3%
Fringe Benefits to Gross Margin	9.1%	7.7 - 12.2%
Payroll & Fringes to Gross Margin	56.2%	50.6 - 60.6%
Inventory Management		
Cost of Whse Goods Sold to Ave Inventory	3.61X	2.99 - 4.40X
No. of Days Average Inventory Carried	101 Days	83 - 122 Days
Total Cost of Goods Sold to Ave Inventory	5.03X	3.67 - 6.91X
Whse Gross Margin Return on Ave Inventory	125%	121 - 141%
Turn & Earn Profitability Index	91%	86 - 104%
Percent of Firms on LIFO	34.62%	
Accounts Receivable		
Average Collection Period	48 Days	39 - 56 Days
Gross Margin Return on Receivables	190%	159 - 218%
Aging of Receivable Dollars:		
Current	68.0%	58.6 - 75.4%
1-30 Days Past Due	10.5%	3.1 - 18.2%
31-60 Days Past Due	8.5%	3.4 - 12.3%
61-90 Days Past Due	6.1%	2.0 - 8.8%
Over 90 Days Past Due	6.8%	1.0 - 10.3%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current	$1,150	$680 - 1,500
1-30 Days Past Due	$833	$490 - 1,470
31-60 Days Past Due	$1,000	$583 - 1,309
61-90 Days Past Due	$833	$476 - 1,520
Over 90 Days Past Due	$1,624	$871 - 4,598
Total	$1,083	$715 - 1,907
Aging of Receivable Accounts:		
Current	68.9%	56.0 - 79.2%
1-30 Days Past Due	15.3%	10.4 - 19.0%
31-60 Days Past Due	7.0%	4.3 - 9.9%
61-90 Days Past Due	4.0%	2.4 - 6.0%
Over 90 Days Past Due	5.0%	1.6 - 4.7%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

HIGH PROFIT PLUMBING SUPPLIES & EQUIPMENT & INDUSTRIAL P-V-F FIRMS

	TYPICAL	RANGE OF COMMON EXPERIENCE
Income Statement		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	74.9%	71.4 - 78.3%
Gross Margin	24.9%	21.7 - 28.6%
Operating Expenses:		
Selling Expenses	5.4%	3.4 - 6.1%
Delivery Expenses	1.0%	0.2 - 2.4%
Warehouse Expenses	2.5%	0.7 - 3.6%
General & Administrative Expenses	9.8%	7.2 - 11.3%
Occupancy Expenses	1.5%	0.9 - 3.1%
Other Operating Expenses	0.0%	0.0 - 0.5%
Total Operating Expenses	22.1%	18.4 - 23.4%
Net Operating Profit	3.1%	1.6 - 5.1%
Non-Operating Income	1.9%	1.1 - 2.6%
Non-Operating Expenses	1.4%	0.5 - 2.1%
Net Profit Before Tax	3.9%	2.7 - 5.4%
Net Profit After Tax	2.4%	1.9 - 3.9%
Operating Expense Control		
Total Operating Expense to Net Sales	22.1%	18.4 - 23.4%
Total Operating Expense to Gross Margin	85.4%	80.0 - 92.1%
Non-People Expense to Net Sales	7.2%	6.0 - 8.2%
Non-People Expense to Gross Margin	28.9%	22.2 - 34.2%
Interest Expense		
Interest Expense to Net Sales	0.4%	0.1 - 1.2%
Times Interest Earned	10.1X	3.7 - 43.0X

HVAC & Other Emphasis Firms

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

HVAC & OTHER EMPHASIS FIRMS

	TYPICAL	RANGE OF COMMON EXPERIENCE
Overall Performance		
Net Profit After Tax to Net Worth	3.26%	-2.40 - 7.56%
Total Assets to Net Worth	1.93X	1.44 - 3.01X
Net Profit After Tax to Total Assets	1.85%	-1.15 - 4.12%
Net Sales to Total Assets	2.30X	1.65 - 2.67X
Net Profit After Tax to Net Sales	0.70%	-0.40 - 1.90%
Net Profit Before Tax to Total Assets	2.30%	-2.03 - 5.48%
EBIT to Total Assets	5.08%	1.05 - 7.75%
Sales Analysis		
Net Sales ($000)	$3,969	$2,425 - 8,500
Percent Sales Change from Prior Year	-3.68%	-9.95 - 3.90%
Sales Mix:		
Direct Sales	8.6%	1.3 - 11.4%
Warehouse Sales - Counter	24.8%	9.9 - 35.1%
Warehouse Sales - Delivery	63.7%	50.6 - 80.5%
TOTAL SALES	100.0%	100.0 - 100.0%
Product Sales Mix		
Plumbing Supplies & Equipment	28.9%	19.0 - 40.3%
Heating & Cooling Supplies & Equipment	29.6%	8.5 - 44.3%
Industrial P-V-F (Pipes-Valves-Fittings)	7.5%	0.0 - 11.3%
Other Industrial Supplies & Equipment	7.3%	0.0 - 5.8%
Other Products	26.7%	5.8 - 44.1%
TOTAL SALES	100.0%	100.0 - 100.0%
Gross Margin		
Gross Margin on Net Sales	26.1%	23.2 - 28.0%
Gross Margin on Direct Shipments	14.3%	10.2 - 16.1%
Gross Margin on Warehouse Sales	26.7%	24.3 - 29.0%
Asset and Financial Management		
Current Asset Turn (Sales/Current Assets)	2.73X	2.19 - 3.16X
Total Debt to Net Worth	92.7%	44.4 - 200.8%
Current Debt to Net Worth	54.5%	32.1 - 140.9%
Current Assets to Current Debt	2.79X	1.82 - 3.91X
Current Assets Minus Inventory/Curr Debt	1.05X	0.72 - 1.81X
Invoice/Transaction Data		
Billing Lines Per Invoice	5.0	4.0 - 6.2
Average Invoice Size	$131	$98 - 203
Average Billing Line	$25.06	$14.66 - 39.73

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

HVAC & OTHER EMPHASIS FIRMS

	TYPICAL	RANGE OF COMMON EXPERIENCE
Personnel Productivity		
Sales Per Employee	$135,715	$118,663 - 156,532
Gross Margin Per Employee	$34,008	$29,431 - 42,116
Average Compensation Per Employee	$18,094	$15,867 - 21,672
Average Fringe Benefits Per Employee	$2,931	$2,381 - 3,959
Compensation & Fringes Per Employee	$20,838	$18,035 - 25,161
Payroll to Net Sales	13.3%	12.0 - 15.5%
Fringe Benefits to Net Sales	2.1%	1.7 - 2.9%
Payroll & Fringes to Net Sales	15.1%	13.5 - 18.6%
Payroll to Gross Margin	52.0%	47.5 - 57.4%
Fringe Benefits to Gross Margin	8.4%	7.0 - 10.6%
Payroll & Fringes to Gross Margin	59.7%	54.4 - 68.4%
Inventory Management		
Cost of Whse Goods Sold to Ave Inventory	3.25X	2.09 - 4.04X
No. of Days Average Inventory Carried	112 Days	90 - 175 Days
Total Cost of Goods Sold to Ave Inventory	3.40X	2.38 - 4.39X
Whse Gross Margin Return on Ave Inventory	111%	78 - 151%
Turn & Earn Profitability Index	83%	56 - 112%
Percent of Firms on LIFO	49.25%	
Accounts Receivable		
Average Collection Period	50 Days	43 - 56 Days
Gross Margin Return on Receivables	190%	153 - 226%
Aging of Receivable Dollars:		
Current	55.4%	48.5 - 70.9%
1-30 Days Past Due	21.6%	11.9 - 24.1%
31-60 Days Past Due	9.2%	5.8 - 11.6%
61-90 Days Past Due	5.6%	2.3 - 8.7%
Over 90 Days Past Due	8.1%	0.9 - 10.1%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current	$648	$443 - 1,063
1-30 Days Past Due	$771	$563 - 1,433
31-60 Days Past Due	$818	$321 - 1,356
61-90 Days Past Due	$646	$392 - 1,300
Over 90 Days Past Due	$1,312	$776 - 2,082
Total	$783	$606 - 1,314
Aging of Receivable Accounts:		
Current	62.0%	51.7 - 79.3%
1-30 Days Past Due	19.0%	10.2 - 20.2%
31-60 Days Past Due	8.7%	4.0 - 12.3%
61-90 Days Past Due	4.5%	1.7 - 6.0%
Over 90 Days Past Due	5.8%	1.0 - 7.7%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

HVAC & OTHER EMPHASIS FIRMS

	TYPICAL	RANGE OF COMMON EXPERIENCE
Income Statement		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	74.1%	72.0 - 76.8%
Gross Margin	26.1%	23.2 - 28.0%
Operating Expenses:		
Selling Expenses	6.9%	5.3 - 9.1%
Delivery Expenses	1.9%	1.3 - 2.5%
Warehouse Expenses	2.3%	1.5 - 3.6%
General & Administrative Expenses	10.1%	7.8 - 12.3%
Occupancy Expenses	1.6%	1.0 - 2.5%
Other Operating Expenses	0.0%	0.0 - 1.1%
Total Operating Expenses	25.1%	21.6 - 27.9%
Net Operating Profit	1.1%	-0.8 - 2.7%
Non-Operating Income	1.8%	1.1 - 2.6%
Non-Operating Expenses	1.8%	1.1 - 2.9%
Net Profit Before Tax	0.8%	-0.8 - 2.9%
Net Profit After Tax	0.7%	-0.4 - 1.9%
Operating Expense Control		
Total Operating Expense to Net Sales	25.1%	21.6 - 27.9%
Total Operating Expense to Gross Margin	96.2%	90.0 - 103.0%
Non-People Expense to Net Sales	8.4%	7.0 - 9.9%
Non-People Expense to Gross Margin	33.8%	27.2 - 39.4%
Interest Expense		
Interest Expense to Net Sales	1.3%	0.6 - 2.3%
Times Interest Earned	1.5X	0.3 - 5.5X

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

HVAC & OTHER FIRMS -- SALES UNDER $3,000,000

	TYPICAL	RANGE OF COMMON EXPERIENCE
Overall Performance		
Net Profit After Tax to Net Worth	-0.67%	-7.89 - 5.74%
Total Assets to Net Worth	1.79X	1.41 - 2.77X
Net Profit After Tax to Total Assets	-0.38%	-4.70 - 3.45%
Net Sales to Total Assets	1.91X	1.56 - 3.00X
Net Profit After Tax to Net Sales	-0.30%	-2.30 - 1.80%
Net Profit Before Tax to Total Assets	0.00%	-3.65 - 4.44%
EBIT to Total Assets	2.18%	-0.98 - 5.77%
Sales Analysis		
Net Sales($000)	$2,150	$1,694 - 2,639
Percent Sales Change from Prior Year	-4.52%	-13.36 - 5.37%
Sales Mix:		
Direct Sales	5.8%	2.3 - 8.6%
Warehouse Sales - Counter	33.2%	13.0 - 48.0%
Warehouse Sales - Delivery	60.9%	45.9 - 80.0%
TOTAL SALES	100.0%	100.0 - 100.0%
Product Sales Mix		
Plumbing Supplies & Equipment	29.1%	20.0 - 40.0%
Heating & Cooling Supplies & Equipment	39.0%	20.0 - 50.0%
Industrial P-V-F (Pipes-Valves-Fittings)	4.7%	0.0 - 10.0%
Other Industrial Supplies & Equipment	2.3%	0.0 - 4.0%
Other Products	24.9%	5.0 - 40.0%
TOTAL SALES	100.0%	100.0 - 100.0%
Gross Margin		
Gross Margin on Net Sales	27.0%	24.4 - 29.2%
Gross Margin on Direct Shipments	16.7%	10.9 - 21.9%
Gross Margin on Warehouse Sales	27.1%	26.4 - 30.0%
Asset and Financial Management		
Current Asset Turn (Sales/Current Assets)	2.19X	1.74 - 3.52X
Total Debt to Net Worth	79.3%	41.1 - 176.9%
Current Debt to Net Worth	53.8%	30.7 - 105.7%
Current Assets to Current Debt	2.95X	2.03 - 4.32X
Current Assets Minus Inventory/Curr Debt	0.93X	0.66 - 1.80X
Invoice/Transaction Data		
Billing Lines Per Invoice	5.9	4.9 - 9.9
Average Invoice Size	$118	$80 - 252
Average Billing Line	$14.58	$10.89 - 28.75

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

HVAC & OTHER FIRMS -- SALES UNDER $3,000,000

	TYPICAL	RANGE OF COMMON EXPERIENCE
Personnel Productivity		
Sales Per Employee	$124,642	$113,390 - 146,471
Gross Margin Per Employee	$33,603	$31,283 - 39,822
Average Compensation Per Employee	$17,728	$15,655 - 20,454
Average Fringe Benefits Per Employee	$3,070	$2,165 - 3,725
Compensation & Fringes Per Employee	$20,715	$17,988 - 23,367
Payroll to Net Sales	14.1%	12.6 - 16.4%
Fringe Benefits to Net Sales	2.2%	1.8 - 2.8%
Payroll & Fringes to Net Sales	16.8%	14.4 - 19.3%
Payroll to Gross Margin	52.0%	46.9 - 58.5%
Fringe Benefits to Gross Margin	8.4%	6.8 - 10.3%
Payroll & Fringes to Gross Margin	61.3%	53.6 - 69.3%
Inventory Management		
Cost of Whse Goods Sold to Ave Inventory	2.21X	1.60 - 4.04X
No. of Days Average Inventory Carried	165 Days	90 - 228 Days
Total Cost of Goods Sold to Ave Inventory	2.36X	1.93 - 4.73X
Whse Gross Margin Return on Ave Inventory	95%	56 - 158%
Turn & Earn Profitability Index	66%	42 - 117%
Percent of Firms on LIFO	33.33%	
Accounts Receivable		
Average Collection Period	50 Days	39 - 56 Days
Gross Margin Return on Receivables	195%	169 - 250%
Aging of Receivable Dollars:		
Current	55.9%	47.6 - 68.8%
1-30 Days Past Due	18.9%	10.1 - 23.4%
31-60 Days Past Due	9.2%	5.1 - 10.9%
61-90 Days Past Due	5.7%	2.4 - 8.9%
Over 90 Days Past Due	10.3%	0.0 - 22.6%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current	$485	$418 - 679
1-30 Days Past Due	$654	$479 - 887
31-60 Days Past Due	$563	$299 - 1,000
61-90 Days Past Due	$705	$332 - 1,572
Over 90 Days Past Due	$1,363	$464 - 3,749
Total	$683	$508 - 976
Aging of Receivable Accounts:		
Current	64.8%	55.7 - 81.5%
1-30 Days Past Due	16.5%	11.4 - 17.9%
31-60 Days Past Due	8.8%	4.4 - 11.7%
61-90 Days Past Due	4.6%	0.8 - 6.5%
Over 90 Days Past Due	5.3%	0.0 - 8.2%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

HVAC & OTHER FIRMS -- SALES UNDER $3,000,000

	TYPICAL	RANGE OF COMMON EXPERIENCE
Income Statement		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	73.6%	70.8 - 75.6%
Gross Margin	27.0%	24.4 - 29.2%
Operating Expenses:		
Selling Expenses	8.7%	4.9 - 9.6%
Delivery Expenses	2.0%	1.4 - 2.6%
Warehouse Expenses	1.8%	1.0 - 3.8%
General & Administrative Expenses	11.0%	9.2 - 17.1%
Occupancy Expenses	1.6%	0.2 - 3.2%
Other Operating Expenses	0.0%	0.0 - 0.9%
Total Operating Expenses	26.6%	24.5 - 30.2%
Net Operating Profit	-0.8%	-1.9 - 1.2%
Non-Operating Income	1.9%	1.1 - 2.5%
Non-Operating Expenses	1.2%	0.0 - 2.5%
Net Profit Before Tax	-0.3%	-2.3 - 1.6%
Net Profit After Tax	-0.3%	-2.3 - 1.8%
Operating Expense Control		
Total Operating Expense to Net Sales	26.6%	24.5 - 30.2%
Total Operating Expense to Gross Margin	102.8%	96.4 - 107.4%
Non-People Expense to Net Sales	9.6%	8.0 - 13.0%
Non-People Expense to Gross Margin	39.4%	30.4 - 47.1%
Interest Expense		
Interest Expense to Net Sales	1.2%	0.3 - 1.8%
Times Interest Earned	0.8X	-0.4 - 5.6X

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

HVAC & OTHER FIRMS -- SALES $3,000,000 TO $8,000,000

	TYPICAL	RANGE OF COMMON EXPERIENCE
Overall Performance		
Net Profit After Tax to Net Worth	3.57%	-2.20 - 9.59%
Total Assets to Net Worth	1.88X	1.36 - 3.44X
Net Profit After Tax to Total Assets	1.62%	-1.14 - 5.65%
Net Sales to Total Assets	2.35X	2.08 - 2.64X
Net Profit After Tax to Net Sales	0.60%	-0.40 - 2.20%
Net Profit Before Tax to Total Assets	1.82%	-1.04 - 7.54%
EBIT to Total Assets	6.38%	1.09 - 9.17%
Sales Analysis		
Net Sales($000)	$4,144	$3,675 - 5,196
Percent Sales Change from Prior Year	-0.95%	-9.37 - 3.51%
Sales Mix:		
Direct Sales	5.4%	0.0 - 9.5%
Warehouse Sales - Counter	20.7%	7.8 - 28.0%
Warehouse Sales - Delivery	73.9%	64.5 - 92.2%
TOTAL SALES	100.0%	100.0 - 100.0%
Product Sales Mix		
Plumbing Supplies & Equipment	30.7%	20.0 - 40.0%
Heating & Cooling Supplies & Equipment	27.2%	5.0 - 40.0%
Industrial P-V-F (Pipes-Valves-Fittings)	10.9%	0.0 - 20.0%
Other Industrial Supplies & Equipment	10.1%	0.0 - 10.0%
Other Products	21.2%	6.0 - 30.0%
TOTAL SALES	100.0%	100.0 - 100.0%
Gross Margin		
Gross Margin on Net Sales	26.9%	23.7 - 28.3%
Gross Margin on Direct Shipments	14.3%	8.0 - 15.8%
Gross Margin on Warehouse Sales	27.9%	25.3 - 32.6%
Asset and Financial Management		
Current Asset Turn (Sales/Current Assets)	2.76X	2.50 - 2.99X
Total Debt to Net Worth	87.6%	36.4 - 244.1%
Current Debt to Net Worth	54.5%	26.4 - 170.3%
Current Assets to Current Debt	2.95X	1.65 - 4.50X
Current Assets Minus Inventory/Curr Debt	1.14X	0.71 - 2.07X
Invoice/Transaction Data		
Billing Lines Per Invoice	5.0	3.9 - 6.0
Average Invoice Size	$122	$86 - 147
Average Billing Line	$23.72	$16.75 - 28.25

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

HVAC & OTHER FIRMS -- SALES $3,000,000 TO $8,000,000

	TYPICAL	RANGE OF COMMON EXPERIENCE
Personnel Productivity		
Sales Per Employee	$126,994	$105,851 - 143,314
Gross Margin Per Employee	$31,358	$28,177 - 37,760
Average Compensation Per Employee	$17,905	$15,473 - 20,451
Average Fringe Benefits Per Employee	$2,871	$2,223 - 4,021
Compensation & Fringes Per Employee	$19,534	$17,108 - 23,515
Payroll to Net Sales	14.0%	11.9 - 15.8%
Fringe Benefits to Net Sales	2.3%	1.9 - 3.3%
Payroll & Fringes to Net Sales	15.4%	12.4 - 18.6%
Payroll to Gross Margin	53.2%	48.5 - 57.5%
Fringe Benefits to Gross Margin	8.8%	7.4 - 11.7%
Payroll & Fringes to Gross Margin	61.0%	51.3 - 67.8%
Inventory Management		
Cost of Whse Goods Sold to Ave Inventory	3.22X	2.70 - 5.38X
No. of Days Average Inventory Carried	113 Days	68 - 135 Days
Total Cost of Goods Sold to Ave Inventory	3.37X	2.83 - 4.37X
Whse Gross Margin Return on Ave Inventory	143%	88 - 176%
Turn & Earn Profitability Index	104%	63 - 133%
Percent of Firms on LIFO	34.78%	
Accounts Receivable		
Average Collection Period	47 Days	42 - 53 Days
Gross Margin Return on Receivables	208%	170 - 246%
Aging of Receivable Dollars:		
Current	64.8%	56.8 - 74.0%
1-30 Days Past Due	14.6%	6.6 - 22.8%
31-60 Days Past Due	8.5%	4.1 - 11.6%
61-90 Days Past Due	4.8%	1.8 - 7.3%
Over 90 Days Past Due	7.3%	1.5 - 7.7%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current	$754	$598 - 1,221
1-30 Days Past Due	$753	$608 - 1,539
31-60 Days Past Due	$676	$463 - 1,266
61-90 Days Past Due	$553	$392 - 725
Over 90 Days Past Due	$1,171	$782 - 1,934
Total	$859	$664 - 1,222
Aging of Receivable Accounts:		
Current	71.0%	63.5 - 79.0%
1-30 Days Past Due	13.7%	6.0 - 19.3%
31-60 Days Past Due	6.7%	3.3 - 9.2%
61-90 Days Past Due	3.5%	1.7 - 4.4%
Over 90 Days Past Due	5.0%	2.2 - 7.3%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

HVAC & OTHER FIRMS -- SALES $3,000,000 TO $8,000,000

Income Statement

	TYPICAL	RANGE OF COMMON EXPERIENCE
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	73.5%	71.7 - 76.3%
Gross Margin	26.9%	23.7 - 28.3%
Operating Expenses:		
Selling Expenses	6.5%	5.1 - 8.3%
Delivery Expenses	1.5%	1.3 - 2.7%
Warehouse Expenses	2.1%	1.5 - 3.5%
General & Administrative Expenses	10.4%	8.9 - 11.6%
Occupancy Expenses	1.8%	0.3 - 2.6%
Other Operating Expenses	0.1%	0.0 - 1.3%
Total Operating Expenses	26.1%	21.8 - 28.1%
Net Operating Profit	1.4%	-0.1 - 3.1%
Non-Operating Income	1.9%	1.4 - 2.7%
Non-Operating Expenses	1.9%	1.6 - 3.0%
Net Profit Before Tax	0.7%	-0.3 - 3.3%
Net Profit After Tax	0.6%	-0.4 - 2.2%

Operating Expense Control

	TYPICAL	RANGE OF COMMON EXPERIENCE
Total Operating Expense to Net Sales	26.1%	21.8 - 28.1%
Total Operating Expense to Gross Margin	94.8%	90.0 - 100.3%
Non-People Expense to Net Sales	8.9%	7.2 - 9.7%
Non-People Expense to Gross Margin	32.9%	24.9 - 36.7%

Interest Expense

	TYPICAL	RANGE OF COMMON EXPERIENCE
Interest Expense to Net Sales	1.4%	0.6 - 2.7%
Times Interest Earned	1.4X	0.4 - 3.2X

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

HVAC & OTHER FIRMS -- SALES OVER $8,000,000

	TYPICAL	RANGE OF COMMON EXPERIENCE
Overall Performance		
Net Profit After Tax to Net Worth	5.20%	0.30 - 8.12%
Total Assets to Net Worth	1.98X	1.57 - 2.65X
Net Profit After Tax to Total Assets	2.25%	0.17 - 5.27%
Net Sales to Total Assets	2.39X	1.85 - 2.63X
Net Profit After Tax to Net Sales	0.90%	0.10 - 2.10%
Net Profit Before Tax to Total Assets	3.06%	-1.41 - 6.59%
EBIT to Total Assets	6.55%	3.73 - 8.17%
Sales Analysis		
Net Sales($000)	$21,845	$9,460 - 29,762
Percent Sales Change from Prior Year	-5.68%	-8.93 - 3.79%
Sales Mix:		
Direct Sales	14.6%	4.0 - 25.3%
Warehouse Sales - Counter	23.5%	13.0 - 34.0%
Warehouse Sales - Delivery	61.9%	48.1 - 72.8%
TOTAL SALES	100.0%	100.0 - 100.0%
Product Sales Mix		
Plumbing Supplies & Equipment	26.7%	10.0 - 42.5%
Heating & Cooling Supplies & Equipment	21.2%	3.5 - 40.3%
Industrial P-V-F (Pipes-Valves-Fittings)	6.8%	0.0 - 6.4%
Other Industrial Supplies & Equipment	9.9%	0.0 - 6.3%
Other Products	35.4%	7.6 - 53.0%
TOTAL SALES	100.0%	100.0 - 100.0%
Gross Margin		
Gross Margin on Net Sales	24.0%	21.2 - 26.5%
Gross Margin on Direct Shipments	13.2%	10.4 - 14.9%
Gross Margin on Warehouse Sales	24.8%	22.0 - 26.6%
Asset and Financial Management		
Current Asset Turn (Sales/Current Assets)	2.78X	2.42 - 3.13X
Total Debt to Net Worth	97.8%	57.0 - 165.4%
Current Debt to Net Worth	54.5%	33.6 - 97.6%
Current Assets to Current Debt	2.72X	2.12 - 3.34X
Current Assets Minus Inventory/Curr Debt	1.04X	0.88 - 1.78X
Invoice/Transaction Data		
Billing Lines Per Invoice	4.0	3.4 - 5.0
Average Invoice Size	$156	$106 - 193
Average Billing Line	$39.02	$24.32 - 54.33

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

HVAC & OTHER FIRMS -- SALES OVER $8,000,000

	TYPICAL	RANGE OF COMMON EXPERIENCE
Personnel Productivity		
Sales Per Employee	$155,987	$136,609 - 205,769
Gross Margin Per Employee	$38,773	$33,235 - 46,733
Average Compensation Per Employee	$21,019	$17,884 - 23,459
Average Fringe Benefits Per Employee	$2,934	$2,490 - 4,222
Compensation & Fringes Per Employee	$24,129	$20,057 - 26,578
Payroll to Net Sales	12.2%	10.3 - 14.0%
Fringe Benefits to Net Sales	1.8%	1.6 - 2.5%
Payroll & Fringes to Net Sales	14.3%	13.1 - 16.3%
Payroll to Gross Margin	50.2%	47.4 - 56.4%
Fringe Benefits to Gross Margin	8.0%	7.0 - 10.2%
Payroll & Fringes to Gross Margin	58.1%	55.5 - 69.2%
Inventory Management		
Cost of Whse Goods Sold to Ave Inventory	3.31X	2.22 - 3.89X
No. of Days Average Inventory Carried	110 Days	94 - 167 Days
Total Cost of Goods Sold to Ave Inventory	3.89X	2.74 - 4.21X
Whse Gross Margin Return on Ave Inventory	109%	78 - 139%
Turn & Earn Profitability Index	82%	57 - 96%
Percent of Firms on LIFO	84.21%	
Accounts Receivable		
Average Collection Period	53 Days	46 - 66 Days
Gross Margin Return on Receivables	151%	134 - 190%
Aging of Receivable Dollars:		
Current	42.0%	0.0 - 64.1%
1-30 Days Past Due	34.7%	14.7 - 68.0%
31-60 Days Past Due	10.4%	6.9 - 15.7%
61-90 Days Past Due	6.8%	2.8 - 9.7%
Over 90 Days Past Due	6.1%	2.0 - 7.9%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current	$1,491	Insufficient Data
1-30 Days Past Due	$1,583	Insufficient Data
31-60 Days Past Due	$1,575	Insufficient Data
61-90 Days Past Due	$662	Insufficient Data
Over 90 Days Past Due	$1,196	Insufficient Data
Total	$1,400	Insufficient Data
Aging of Receivable Accounts:		
Current	31.8%	Insufficient Data
1-30 Days Past Due	39.7%	Insufficient Data
31-60 Days Past Due	13.1%	Insufficient Data
61-90 Days Past Due	6.1%	Insufficient Data
Over 90 Days Past Due	9.4%	Insufficient Data
Total	100.0%	Insufficient Data

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

HVAC & OTHER FIRMS -- SALES OVER $8,000,000

	TYPICAL	RANGE OF COMMON EXPERIENCE
Income Statement		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	75.8%	73.5 - 78.8%
Gross Margin	24.0%	21.2 - 26.5%
Operating Expenses:		
Selling Expenses	7.2%	5.3 - 8.5%
Delivery Expenses	1.9%	0.6 - 2.2%
Warehouse Expenses	2.8%	1.9 - 3.5%
General & Administrative Expenses	8.1%	7.0 - 10.3%
Occupancy Expenses	1.3%	1.2 - 1.7%
Other Operating Expenses	0.0%	0.0 - 1.3%
Total Operating Expenses	21.4%	19.8 - 24.8%
Net Operating Profit	2.0%	1.3 - 3.2%
Non-Operating Income	1.4%	0.9 - 2.8%
Non-Operating Expenses	2.4%	1.5 - 3.5%
Net Profit Before Tax	1.4%	0.3 - 3.1%
Net Profit After Tax	0.9%	0.1 - 2.1%
Operating Expense Control		
Total Operating Expense to Net Sales	21.4%	19.8 - 24.8%
Total Operating Expense to Gross Margin	90.6%	85.0 - 95.0%
Non-People Expense to Net Sales	7.2%	5.6 - 8.0%
Non-People Expense to Gross Margin	28.6%	26.4 - 33.3%
Interest Expense		
Interest Expense to Net Sales	1.3%	0.9 - 2.1%
Times Interest Earned	1.6X	0.7 - 6.5X

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

HIGH PROFIT HVAC & OTHER EMPHASIS FIRMS

	TYPICAL	RANGE OF COMMON EXPERIENCE
Overall Performance		
Net Profit After Tax to Net Worth	7.15%	4.90 - 11.24%
Total Assets to Net Worth	1.61X	1.34 - 2.53X
Net Profit After Tax to Total Assets	4.03%	2.61 - 6.37%
Net Sales to Total Assets	2.48X	1.80 - 2.90X
Net Profit After Tax to Net Sales	1.90%	1.10 - 3.30%
Net Profit Before Tax to Total Assets	5.48%	3.64 - 9.15%
EBIT to Total Assets	7.68%	5.93 - 11.49%
Sales Analysis		
Net Sales ($000)	$4,274	$2,639 - 9,712
Percent Sales Change from Prior Year	0.36%	-6.57 - 5.19%
Sales Mix:		
Direct Sales	8.9%	0.0 - 11.5%
Warehouse Sales - Counter	24.6%	10.5 - 35.0%
Warehouse Sales - Delivery	66.5%	50.8 - 81.2%
TOTAL SALES	100.0%	100.0 - 100.0%
Product Sales Mix		
Plumbing Supplies & Equipment	28.1%	18.0 - 40.0%
Heating & Cooling Supplies & Equipment	32.9%	5.0 - 50.0%
Industrial P-V-F (Pipes-Valves-Fittings)	7.2%	0.0 - 8.5%
Other Industrial Supplies & Equipment	3.5%	0.0 - 1.0%
Other Products	28.2%	2.5 - 51.0%
TOTAL SALES	100.0%	100.0 - 100.0%
Gross Margin		
Gross Margin on Net Sales	26.5%	23.2 - 29.2%
Gross Margin on Direct Shipments	14.3%	11.9 - 16.3%
Gross Margin on Warehouse Sales	27.2%	23.2 - 31.5%
Asset and Financial Management		
Current Asset Turn (Sales/Current Assets)	2.73X	2.29 - 3.29X
Total Debt to Net Worth	60.8%	34.2 - 153.3%
Current Debt to Net Worth	39.1%	26.1 - 94.5%
Current Assets to Current Debt	3.11X	2.09 - 4.65X
Current Assets Minus Inventory/Curr Debt	1.78X	1.02 - 2.13X
Invoice/Transaction Data		
Billing Lines Per Invoice	5.0	3.7 - 6.0
Average Invoice Size	$132	$99 - 211
Average Billing Line	$26.92	$17.58 - 41.61

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

HIGH PROFIT HVAC & OTHER EMPHASIS FIRMS

	TYPICAL	RANGE OF COMMON EXPERIENCE
Personnel Productivity		
Sales Per Employee	$145,109	$120,750 - 166,198
Gross Margin Per Employee	$38,031	$32,266 - 43,325
Average Compensation Per Employee	$18,850	$15,737 - 22,861
Average Fringe Benefits Per Employee	$3,542	$2,500 - 5,023
Compensation & Fringes Per Employee	$22,358	$17,994 - 27,439
Payroll to Net Sales	12.7%	10.9 - 16.6%
Fringe Benefits to Net Sales	2.3%	1.7 - 3.5%
Payroll & Fringes to Net Sales	14.5%	12.1 - 19.8%
Payroll to Gross Margin	49.4%	45.9 - 54.3%
Fringe Benefits to Gross Margin	9.0%	6.9 - 12.2%
Payroll & Fringes to Gross Margin	56.0%	52.5 - 65.3%
Inventory Management		
Cost of Whse Goods Sold to Ave Inventory	3.88X	2.15 - 5.06X
No. of Days Average Inventory Carried	94 Days	72 - 173 Days
Total Cost of Goods Sold to Ave Inventory	3.94X	2.73 - 5.57X
Whse Gross Margin Return on Ave Inventory	145%	81 - 174%
Turn & Earn Profitability Index	104%	55 - 124%
Percent of Firms on LIFO	50.00%	
Accounts Receivable		
Average Collection Period	51 Days	43 - 58 Days
Gross Margin Return on Receivables	173%	151 - 237%
Aging of Receivable Dollars:		
Current	56.2%	44.1 - 74.6%
1-30 Days Past Due	22.6%	11.0 - 30.2%
31-60 Days Past Due	8.9%	4.6 - 12.0%
61-90 Days Past Due	4.8%	1.4 - 6.3%
Over 90 Days Past Due	7.5%	1.7 - 8.3%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current	$708	$400 - 1,294
1-30 Days Past Due	$910	$588 - 1,808
31-60 Days Past Due	$562	$321 - 1,575
61-90 Days Past Due	$597	$388 - 705
Over 90 Days Past Due	$1,216	$776 - 1,845
Total	$888	$654 - 1,403
Aging of Receivable Accounts:		
Current	61.6%	49.7 - 82.2%
1-30 Days Past Due	20.8%	6.9 - 26.4%
31-60 Days Past Due	8.5%	3.4 - 16.1%
61-90 Days Past Due	3.5%	0.8 - 6.2%
Over 90 Days Past Due	5.6%	1.3 - 7.9%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

HIGH PROFIT HVAC & OTHER EMPHASIS FIRMS

	TYPICAL	RANGE OF COMMON EXPERIENCE
Income Statement		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	73.9%	70.8 - 76.8%
Gross Margin	26.5%	23.2 - 29.2%
Operating Expenses:		
Selling Expenses	6.0%	4.7 - 8.5%
Delivery Expenses	1.7%	1.1 - 2.2%
Warehouse Expenses	2.4%	1.7 - 3.5%
General & Administrative Expenses	10.4%	7.8 - 12.3%
Occupancy Expenses	1.6%	1.2 - 2.1%
Other Operating Expenses	0.0%	0.0 - 1.1%
Total Operating Expenses	24.5%	19.7 - 27.8%
Net Operating Profit	2.5%	1.3 - 3.4%
Non-Operating Income	2.3%	1.4 - 3.0%
Non-Operating Expenses	1.6%	1.1 - 2.8%
Net Profit Before Tax	2.9%	1.5 - 4.1%
Net Profit After Tax	1.9%	1.1 - 3.3%
Operating Expense Control		
Total Operating Expense to Net Sales	24.5%	19.7 - 27.8%
Total Operating Expense to Gross Margin	91.1%	84.3 - 95.2%
Non-People Expense to Net Sales	7.8%	6.6 - 9.6%
Non-People Expense to Gross Margin	29.4%	23.3 - 36.4%
Interest Expense		
Interest Expense to Net Sales	0.8%	0.3 - 1.6%
Times Interest Earned	5.6X	2.2 - 8.6X

All Reporting Firms

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

ALL FIRMS

	TYPICAL	RANGE OF COMMON EXPERIENCE
Overall Performance		
Net Profit After Tax to Net Worth	3.84%	-1.51 - 9.02%
Total Assets to Net Worth	1.69X	1.36 - 2.51X
Net Profit After Tax to Total Assets	2.32%	-0.76 - 5.33%
Net Sales to Total Assets	2.38X	1.98 - 2.84X
Net Profit After Tax to Net Sales	1.00%	-0.30 - 2.20%
Net Profit Before Tax to Total Assets	2.81%	-1.27 - 7.85%
EBIT to Total Assets	5.47%	1.70 - 9.74%
Sales Analysis		
Net Sales($000)	$4,046	$2,546 - 8,232
Percent Sales Change from Prior Year	-4.27%	-11.66 - 1.77%
Sales Mix:		
Direct Sales	11.4%	4.0 - 16.0%
Warehouse Sales - Counter	27.4%	8.1 - 38.0%
Warehouse Sales - Delivery	60.6%	47.0 - 79.4%
TOTAL SALES	100.0%	100.0 - 100.0%
Product Sales Mix		
Plumbing Supplies & Equipment	51.0%	30.0 - 75.0%
Heating & Cooling Supplies & Equipment	14.7%	0.0 - 25.0%
Industrial P-V-F (Pipes-Valves-Fittings)	22.4%	0.5 - 30.0%
Other Industrial Supplies & Equipment	3.7%	0.0 - 5.0%
Other Products	8.2%	0.0 - 10.0%
TOTAL SALES	100.0%	100.0 - 100.0%
Gross Margin		
Gross Margin on Net Sales	25.0%	21.8 - 27.5%
Gross Margin on Direct Shipments	11.6%	9.0 - 15.5%
Gross Margin on Warehouse Sales	26.1%	23.2 - 28.9%
Asset and Financial Management		
Current Asset Turn (Sales/Current Assets)	2.76X	2.28 - 3.34X
Total Debt to Net Worth	68.3%	36.4 - 148.5%
Current Debt to Net Worth	48.4%	28.1 - 102.7%
Current Assets to Current Debt	2.96X	1.96 - 4.13X
Current Assets Minus Inventory/Curr Debt	1.27X	0.79 - 1.92X
Invoice/Transaction Data		
Billing Lines Per Invoice	5.1	4.3 - 8.0
Average Invoice Size	$155	$107 - 237
Average Billing Line	$26.06	$15.20 - 43.97

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

ALL FIRMS

	TYPICAL	RANGE OF COMMON EXPERIENCE
Personnel Productivity		
Sales Per Employee	$152,258	$127,210 - 198,780
Gross Margin Per Employee	$37,457	$32,153 - 46,771
Average Compensation Per Employee	$19,597	$16,819 - 22,935
Average Fringe Benefits Per Employee	$3,271	$2,388 - 4,511
Compensation & Fringes Per Employee	$22,895	$19,202 - 26,753
Payroll to Net Sales	12.5%	10.7 - 14.8%
Fringe Benefits to Net Sales	2.1%	1.6 - 2.9%
Payroll & Fringes to Net Sales	14.5%	12.3 - 17.3%
Payroll to Gross Margin	50.6%	45.8 - 56.2%
Fringe Benefits to Gross Margin	8.6%	6.8 - 11.0%
Payroll & Fringes to Gross Margin	59.1%	53.7 - 65.6%
Inventory Management		
Cost of Whse Goods Sold to Ave Inventory	3.12X	2.27 - 4.11X
No. of Days Average Inventory Carried	117 Days	89 - 161 Days
Total Cost of Goods Sold to Ave Inventory	3.60X	2.67 - 4.97X
Whse Gross Margin Return on Ave Inventory	109%	86 - 137%
Turn & Earn Profitability Index	82%	62 - 103%
Percent of Firms on LIFO	50.99%	
Accounts Receivable		
Average Collection Period	47 Days	40 - 56 Days
Gross Margin Return on Receivables	192%	155 - 231%
Aging of Receivable Dollars:		
Current	60.7%	52.3 - 73.4%
1-30 Days Past Due	16.9%	9.1 - 21.0%
31-60 Days Past Due	8.6%	4.8 - 11.3%
61-90 Days Past Due	5.5%	2.0 - 7.6%
Over 90 Days Past Due	8.3%	1.9 - 10.8%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current	$906	$602 - 1,489
1-30 Days Past Due	$923	$599 - 1,702
31-60 Days Past Due	$959	$502 - 1,759
61-90 Days Past Due	$967	$540 - 1,662
Over 90 Days Past Due	$1,527	$800 - 2,984
Total	$951	$671 - 1,534
Aging of Receivable Accounts:		
Current	63.5%	55.0 - 76.3%
1-30 Days Past Due	17.0%	9.5 - 20.0%
31-60 Days Past Due	8.7%	4.6 - 10.6%
61-90 Days Past Due	5.1%	2.4 - 6.8%
Over 90 Days Past Due	5.7%	1.5 - 7.7%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

ALL FIRMS

	TYPICAL	RANGE OF COMMON EXPERIENCE
Income Statement		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	75.3%	72.5 - 78.2%
Gross Margin	25.0%	21.8 - 27.5%
Operating Expenses:		
Selling Expenses	6.0%	4.6 - 7.9%
Delivery Expenses	1.9%	1.2 - 2.6%
Warehouse Expenses	2.5%	1.7 - 3.7%
General & Administrative Expenses	9.3%	7.1 - 11.4%
Occupancy Expenses	1.6%	0.9 - 2.6%
Other Operating Expenses	0.0%	0.0 - 0.9%
Total Operating Expenses	23.2%	20.1 - 26.9%
Net Operating Profit	1.4%	-0.3 - 2.8%
Non-Operating Income	1.9%	1.0 - 2.6%
Non-Operating Expenses	1.8%	1.1 - 2.9%
Net Profit Before Tax	1.1%	-0.6 - 3.1%
Net Profit After Tax	1.0%	-0.3 - 2.2%
Operating Expense Control		
Total Operating Expense to Net Sales	23.2%	20.1 - 26.9%
Total Operating Expense to Gross Margin	94.3%	88.1 - 101.3%
Non-People Expense to Net Sales	8.0%	6.5 - 9.6%
Non-People Expense to Gross Margin	32.6%	27.2 - 38.9%
Interest Expense		
Interest Expense to Net Sales	1.0%	0.4 - 1.9%
Times Interest Earned	2.0X	0.5 - 6.3X

All Firms by Geographic Region

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: NEW ENGLAND (CT, ME, MA, NH, RI, VT)

	TYPICAL	RANGE OF COMMON EXPERIENCE
Overall Performance		
Net Profit After Tax to Net Worth	6.55%	2.02 - 11.71%
Total Assets to Net Worth	1.43X	1.32 - 3.27X
Net Profit After Tax to Total Assets	3.61%	1.46 - 6.86%
Net Sales to Total Assets	2.40X	2.08 - 2.82X
Net Profit After Tax to Net Sales	1.40%	0.60 - 3.40%
Net Profit Before Tax to Total Assets	4.76%	1.74 - 10.65%
EBIT to Total Assets	6.76%	3.75 - 14.07%
Sales Analysis		
Net Sales($000)	$3,641	$2,667 - 5,365
Percent Sales Change from Prior Year	-3.06%	-8.07 - 3.80%
Sales Mix:		
Direct Sales	4.9%	0.2 - 8.7%
Warehouse Sales - Counter	21.3%	0.0 - 31.5%
Warehouse Sales - Delivery	66.7%	56.8 - 88.3%
TOTAL SALES	100.0%	100.0 - 100.0%
Product Sales Mix		
Plumbing Supplies & Equipment	40.7%	28.0 - 56.3%
Heating & Cooling Supplies & Equipment	29.0%	8.8 - 40.0%
Industrial P-V-F (Pipes-Valves-Fittings)	22.0%	2.0 - 30.0%
Other Industrial Supplies & Equipment	3.2%	0.0 - 2.0%
Other Products	5.1%	0.0 - 1.3%
TOTAL SALES	100.0%	100.0 - 100.0%
Gross Margin		
Gross Margin on Net Sales	25.6%	23.1 - 27.5%
Gross Margin on Direct Shipments	10.0%	6.3 - 13.5%
Gross Margin on Warehouse Sales	24.9%	22.7 - 27.6%
Asset and Financial Management		
Current Asset Turn (Sales/Current Assets)	2.68X	2.24 - 3.05X
Total Debt to Net Worth	43.0%	31.7 - 227.0%
Current Debt to Net Worth	39.1%	27.7 - 165.9%
Current Assets to Current Debt	2.95X	1.74 - 4.26X
Current Assets Minus Inventory/Curr Debt	1.16X	0.72 - 2.17X
Invoice/Transaction Data		
Billing Lines Per Invoice	5.6	4.3 - 8.5
Average Invoice Size	$135	$104 - 265
Average Billing Line	$30.54	$12.43 - 70.46

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: NEW ENGLAND (CT, ME, MA, NH, RI, VT)

	TYPICAL	RANGE OF COMMON EXPERIENCE
Personnel Productivity		
Sales Per Employee	$154,870	$128,143 - 168,880
Gross Margin Per Employee	$37,526	$34,049 - 47,103
Average Compensation Per Employee	$18,330	$16,992 - 23,944
Average Fringe Benefits Per Employee	$3,167	$2,169 - 4,807
Compensation & Fringes Per Employee	$21,320	$18,882 - 28,155
Payroll to Net Sales	12.3%	11.3 - 15.0%
Fringe Benefits to Net Sales	2.0%	1.6 - 2.8%
Payroll & Fringes to Net Sales	14.5%	12.7 - 18.0%
Payroll to Gross Margin	48.6%	45.5 - 51.5%
Fringe Benefits to Gross Margin	8.1%	5.8 - 12.6%
Payroll & Fringes to Gross Margin	57.0%	53.9 - 62.5%
Inventory Management		
Cost of Whse Goods Sold to Ave Inventory	3.81X	2.07 - 5.15X
No. of Days Average Inventory Carried	96 Days	71 - 177 Days
Total Cost of Goods Sold to Ave Inventory	3.47X	2.64 - 4.69X
Whse Gross Margin Return on Ave Inventory	113%	100 - 146%
Turn & Earn Profitability Index	83%	62 - 113%
Percent of Firms on LIFO	37.04%	
Accounts Receivable		
Average Collection Period	55 Days	48 - 66 Days
Gross Margin Return on Receivables	184%	132 - 205%
Aging of Receivable Dollars:		
Current	50.2%	35.5 - 67.6%
1-30 Days Past Due	27.3%	12.2 - 32.1%
31-60 Days Past Due	11.3%	5.7 - 16.5%
61-90 Days Past Due	5.1%	2.8 - 6.5%
Over 90 Days Past Due	6.0%	1.9 - 7.9%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current	$1,136	$716 - 1,875
1-30 Days Past Due	$755	$636 - 2,995
31-60 Days Past Due	$679	$321 - 2,401
61-90 Days Past Due	$602	$336 - 1,867
Over 90 Days Past Due	$1,218	$660 - 3,460
Total	$830	$587 - 1,330
Aging of Receivable Accounts:		
Current	49.9%	14.2 - 76.1%
1-30 Days Past Due	26.6%	9.4 - 35.7%
31-60 Days Past Due	14.3%	4.7 - 16.2%
61-90 Days Past Due	5.4%	1.8 - 7.9%
Over 90 Days Past Due	3.8%	1.4 - 6.4%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: NEW ENGLAND (CT, ME, MA, NH, RI, VT)

Income Statement

	TYPICAL	RANGE OF COMMON EXPERIENCE
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	75.4%	72.5 - 76.9%
Gross Margin	25.6%	23.1 - 27.5%
Operating Expenses:		
Selling Expenses	5.3%	4.2 - 6.5%
Delivery Expenses	2.4%	2.0 - 2.8%
Warehouse Expenses	2.3%	1.9 - 3.0%
General & Administrative Expenses	9.8%	7.6 - 15.3%
Occupancy Expenses	1.6%	1.2 - 2.4%
Other Operating Expenses	0.0%	0.0 - 0.2%
Total Operating Expenses	22.8%	20.7 - 26.8%
Net Operating Profit	1.5%	0.6 - 5.1%
Non-Operating Income	2.0%	1.0 - 2.5%
Non-Operating Expenses	1.3%	0.8 - 2.9%
Net Profit Before Tax	1.6%	0.9 - 3.4%
Net Profit After Tax	1.4%	0.6 - 3.4%

Operating Expense Control

	TYPICAL	RANGE OF COMMON EXPERIENCE
Total Operating Expense to Net Sales	22.8%	20.7 - 26.8%
Total Operating Expense to Gross Margin	93.6%	83.5 - 97.9%
Non-People Expense to Net Sales	8.0%	7.0 - 9.4%
Non-People Expense to Gross Margin	32.9%	26.5 - 38.9%

Interest Expense

	TYPICAL	RANGE OF COMMON EXPERIENCE
Interest Expense to Net Sales	0.5%	0.2 - 2.6%
Times Interest Earned	3.3X	1.4 - 12.7X

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: NEW YORK STATE (EXCLUDING NYC)

	TYPICAL	RANGE OF COMMON EXPERIENCE
Overall Performance		
Net Profit After Tax to Net Worth	1.80%	-2.30 - 8.82%
Total Assets to Net Worth	1.65X	1.34 - 2.09X
Net Profit After Tax to Total Assets	1.08%	-1.57 - 5.38%
Net Sales to Total Assets	2.09X	1.70 - 2.64X
Net Profit After Tax to Net Sales	0.50%	-0.70 - 2.10%
Net Profit Before Tax to Total Assets	2.58%	-1.73 - 10.58%
EBIT to Total Assets	5.25%	0.18 - 11.53%
Sales Analysis		
Net Sales($000)	$3,867	$1,720 - 5,603
Percent Sales Change from Prior Year	-0.01%	-3.85 - 8.95%
Sales Mix:		
Direct Sales	7.0%	0.6 - 9.6%
Warehouse Sales - Counter	32.9%	13.3 - 46.2%
Warehouse Sales - Delivery	60.2%	46.7 - 79.5%
TOTAL SALES	100.0%	100.0 - 100.0%
Product Sales Mix		
Plumbing Supplies & Equipment	46.9%	31.3 - 68.8%
Heating & Cooling Supplies & Equipment	25.3%	11.3 - 40.0%
Industrial P-V-F (Pipes-Valves-Fittings)	16.7%	2.0 - 23.8%
Other Industrial Supplies & Equipment	3.1%	0.0 - 2.0%
Other Products	8.0%	0.0 - 13.8%
TOTAL SALES	100.0%	100.0 - 100.0%
Gross Margin		
Gross Margin on Net Sales	26.6%	24.7 - 28.0%
Gross Margin on Direct Shipments	10.1%	8.2 - 16.3%
Gross Margin on Warehouse Sales	27.5%	25.5 - 30.2%
Asset and Financial Management		
Current Asset Turn (Sales/Current Assets)	2.54X	2.05 - 2.97X
Total Debt to Net Worth	65.1%	34.7 - 108.7%
Current Debt to Net Worth	55.5%	28.1 - 79.1%
Current Assets to Current Debt	2.59X	2.07 - 4.06X
Current Assets Minus Inventory/Curr Debt	1.18X	0.74 - 1.98X
Invoice/Transaction Data		
Billing Lines Per Invoice	5.1	4.9 - 7.0
Average Invoice Size	$129	$89 - 143
Average Billing Line	$20.46	$14.87 - 28.85

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: NEW YORK STATE (EXCLUDING NYC)

	TYPICAL	RANGE OF COMMON EXPERIENCE
Personnel Productivity		
Sales Per Employee	$134,110	$99,827 - 142,836
Gross Margin Per Employee	$34,132	$26,601 - 37,542
Average Compensation Per Employee	$16,153	$13,913 - 19,225
Average Fringe Benefits Per Employee	$2,942	$1,868 - 3,745
Compensation & Fringes Per Employee	$19,820	$16,514 - 23,831
Payroll to Net Sales	14.0%	12.4 - 15.6%
Fringe Benefits to Net Sales	2.2%	2.0 - 2.7%
Payroll & Fringes to Net Sales	15.9%	14.2 - 18.9%
Payroll to Gross Margin	52.3%	47.0 - 57.3%
Fringe Benefits to Gross Margin	8.5%	7.3 - 10.9%
Payroll & Fringes to Gross Margin	61.3%	55.9 - 66.7%
Inventory Management		
Cost of Whse Goods Sold to Ave Inventory	2.32X	1.71 - 3.26X
No. of Days Average Inventory Carried	157 Days	112 - 216 Days
Total Cost of Goods Sold to Ave Inventory	2.86X	2.22 - 4.66X
Whse Gross Margin Return on Ave Inventory	103%	73 - 130%
Turn & Earn Profitability Index	63%	47 - 100%
Percent of Firms on LIFO	33.33%	
Accounts Receivable		
Average Collection Period	50 Days	44 - 59 Days
Gross Margin Return on Receivables	198%	141 - 237%
Aging of Receivable Dollars:		
Current	64.9%	57.9 - 75.1%
1-30 Days Past Due	16.2%	13.2 - 21.0%
31-60 Days Past Due	7.0%	5.5 - 9.0%
61-90 Days Past Due	4.8%	1.8 - 6.0%
Over 90 Days Past Due	7.2%	1.8 - 7.5%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current	$680	$540 - 996
1-30 Days Past Due	$608	$390 - 725
31-60 Days Past Due	$598	$416 - 734
61-90 Days Past Due	$800	$332 - 1,089
Over 90 Days Past Due	$1,316	$782 - 7,131
Total	$734	$547 - 914
Aging of Receivable Accounts:		
Current	61.5%	47.9 - 74.8%
1-30 Days Past Due	16.0%	8.8 - 23.1%
31-60 Days Past Due	7.3%	5.5 - 9.9%
61-90 Days Past Due	7.6%	2.6 - 6.5%
Over 90 Days Past Due	7.7%	1.3 - 7.4%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: NEW YORK STATE (EXCLUDING NYC)

	TYPICAL	RANGE OF COMMON EXPERIENCE
Income Statement		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	73.2%	72.0 - 75.3%
Gross Margin	26.6%	24.7 - 28.0%
Operating Expenses:		
Selling Expenses	5.9%	4.0 - 9.0%
Delivery Expenses	2.5%	1.2 - 3.1%
Warehouse Expenses	2.0%	0.5 - 3.2%
General & Administrative Expenses	11.0%	8.5 - 12.1%
Occupancy Expenses	2.5%	1.4 - 3.2%
Other Operating Expenses	0.2%	0.0 - 1.2%
Total Operating Expenses	25.2%	22.4 - 28.9%
Net Operating Profit	1.6%	-0.6 - 2.8%
Non-Operating Income	1.1%	0.1 - 2.1%
Non-Operating Expenses	1.5%	0.2 - 1.8%
Net Profit Before Tax	0.3%	-1.0 - 3.2%
Net Profit After Tax	0.5%	-0.7 - 2.1%
Operating Expense Control		
Total Operating Expense to Net Sales	25.2%	22.4 - 28.9%
Total Operating Expense to Gross Margin	93.9%	89.6 - 102.4%
Non-People Expense to Net Sales	8.9%	7.4 - 10.1%
Non-People Expense to Gross Margin	31.7%	29.2 - 37.4%
Interest Expense		
Interest Expense to Net Sales	0.7%	0.4 - 1.6%
Times Interest Earned	1.6X	0.1 - 10.3X

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: MIDDLE ATLANTIC (DE, EASTERN PA, MD, NJ, WA, DC)

	TYPICAL	RANGE OF COMMON EXPERIENCE
Overall Performance		
Net Profit After Tax to Net Worth	4.78%	1.11 - 8.08%
Total Assets to Net Worth	1.68X	1.37 - 2.08X
Net Profit After Tax to Total Assets	2.31%	0.61 - 4.90%
Net Sales to Total Assets	2.38X	1.74 - 3.02X
Net Profit After Tax to Net Sales	1.00%	0.30 - 2.80%
Net Profit Before Tax to Total Assets	3.11%	-0.62 - 6.35%
EBIT to Total Assets	4.93%	-0.59 - 6.67%
Sales Analysis		
Net Sales($000)	$3,840	$1,928 - 8,902
Percent Sales Change from Prior Year	-0.04%	-6.43 - 2.95%
Sales Mix:		
Direct Sales	8.5%	1.7 - 13.9%
Warehouse Sales - Counter	30.9%	10.4 - 50.6%
Warehouse Sales - Delivery	60.6%	40.0 - 79.5%
TOTAL SALES	100.0%	100.0 - 100.0%
Product Sales Mix		
Plumbing Supplies & Equipment	49.4%	30.0 - 75.0%
Heating & Cooling Supplies & Equipment	20.0%	0.0 - 30.0%
Industrial P-V-F (Pipes-Valves-Fittings)	20.1%	2.0 - 20.0%
Other Industrial Supplies & Equipment	2.4%	0.0 - 5.0%
Other Products	8.1%	0.0 - 6.0%
TOTAL SALES	100.0%	100.0 - 100.0%
Gross Margin		
Gross Margin on Net Sales	26.3%	21.6 - 29.8%
Gross Margin on Direct Shipments	13.0%	10.3 - 16.2%
Gross Margin on Warehouse Sales	28.1%	22.6 - 29.8%
Asset and Financial Management		
Current Asset Turn (Sales/Current Assets)	2.86X	2.09 - 3.50X
Total Debt to Net Worth	67.7%	37.4 - 107.7%
Current Debt to Net Worth	38.7%	25.7 - 73.4%
Current Assets to Current Debt	3.77X	2.24 - 4.57X
Current Assets Minus Inventory/Curr Debt	1.53X	1.02 - 2.25X
Invoice/Transaction Data		
Billing Lines Per Invoice	5.0	4.1 - 7.8
Average Invoice Size	$152	$81 - 256
Average Billing Line	$23.22	$17.36 - 39.93

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: MIDDLE ATLANTIC (DE, EASTERN PA, MD, NJ, WA. DC)

	TYPICAL	RANGE OF COMMON EXPERIENCE
Personnel Productivity		
Sales Per Employee	$155,834	$122,067 - 194,819
Gross Margin Per Employee	$41,176	$33,729 - 44,865
Average Compensation Per Employee	$21,019	$17,605 - 23,525
Average Fringe Benefits Per Employee	$3,910	$2,523 - 5,329
Compensation & Fringes Per Employee	$24,247	$20,189 - 29,441
Payroll to Net Sales	13.0%	11.0 - 16.6%
Fringe Benefits to Net Sales	2.5%	1.9 - 3.1%
Payroll & Fringes to Net Sales	15.0%	12.9 - 19.9%
Payroll to Gross Margin	50.5%	44.8 - 58.4%
Fringe Benefits to Gross Margin	9.9%	6.9 - 12.1%
Payroll & Fringes to Gross Margin	59.5%	54.1 - 73.6%
Inventory Management		
Cost of Whse Goods Sold to Ave Inventory	3.79X	3.01 - 4.58X
No. of Days Average Inventory Carried	96 Days	80 - 122 Days
Total Cost of Goods Sold to Ave Inventory	4.26X	2.62 - 6.29X
Whse Gross Margin Return on Ave Inventory	132%	101 - 175%
Turn & Earn Profitability Index	102%	76 - 124%
Percent of Firms on LIFO	30.00%	
Accounts Receivable		
Average Collection Period	50 Days	43 - 62 Days
Gross Margin Return on Receivables	208%	136 - 248%
Aging of Receivable Dollars:		
Current	60.3%	55.1 - 74.6%
1-30 Days Past Due	16.4%	4.5 - 25.2%
31-60 Days Past Due	9.2%	3.9 - 11.8%
61-90 Days Past Due	7.0%	2.1 - 11.9%
Over 90 Days Past Due	7.2%	1.8 - 10.2%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current	$958	$520 - 1,595
1-30 Days Past Due	$734	$482 - 1,475
31-60 Days Past Due	$575	$377 - 1,373
61-90 Days Past Due	$746	$280 - 2,044
Over 90 Days Past Due	$1,417	$659 - 3,654
Total	$959	$516 - 1,609
Aging of Receivable Accounts:		
Current	60.7%	51.4 - 70.2%
1-30 Days Past Due	16.3%	10.2 - 20.7%
31-60 Days Past Due	10.1%	5.3 - 11.4%
61-90 Days Past Due	6.9%	2.9 - 10.0%
Over 90 Days Past Due	6.1%	0.7 - 9.7%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: MIDDLE ATLANTIC (DE, EASTERN PA, MD, NJ, VA, DC)

Income Statement

	TYPICAL	RANGE OF COMMON EXPERIENCE
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	72.8%	70.2 - 78.4%
Gross Margin	26.3%	21.6 - 29.8%
Operating Expenses:		
Selling Expenses	5.7%	4.6 - 9.5%
Delivery Expenses	2.1%	1.2 - 2.7%
Warehouse Expenses	2.5%	0.6 - 3.5%
General & Administrative Expenses	10.6%	7.4 - 14.3%
Occupancy Expenses	2.1%	0.7 - 3.6%
Other Operating Expenses	0.0%	0.0 - 0.5%
Total Operating Expenses	23.5%	20.5 - 30.1%
Net Operating Profit	1.3%	-1.0 - 2.5%
Non-Operating Income	2.0%	0.5 - 2.9%
Non-Operating Expenses	1.5%	0.7 - 2.0%
Net Profit Before Tax	1.4%	-1.2 - 3.6%
Net Profit After Tax	1.0%	0.3 - 2.8%

Operating Expense Control

	TYPICAL	RANGE OF COMMON EXPERIENCE
Total Operating Expense to Net Sales	23.5%	20.5 - 30.1%
Total Operating Expense to Gross Margin	95.1%	90.6 - 105.5%
Non-People Expense to Net Sales	7.2%	5.9 - 9.8%
Non-People Expense to Gross Margin	32.1%	22.5 - 38.0%

Interest Expense

	TYPICAL	RANGE OF COMMON EXPERIENCE
Interest Expense to Net Sales	0.8%	0.3 - 1.3%
Times Interest Earned	2.4X	-0.1 - 6.4X

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: EAST CENTRAL (IN, OH, WESTERN PA, WV)

	TYPICAL	RANGE OF COMMON EXPERIENCE
Overall Performance		
Net Profit After Tax to Net Worth	0.18%	-2.93 - 4.63%
Total Assets to Net Worth	1.79X	1.30 - 2.67X
Net Profit After Tax to Total Assets	0.11%	-1.18 - 2.53%
Net Sales to Total Assets	2.39X	1.99 - 2.88X
Net Profit After Tax to Net Sales	0.10%	-0.40 - 1.50%
Net Profit Before Tax to Total Assets	0.71%	-1.68 - 3.33%
EBIT to Total Assets	4.19%	0.68 - 6.07%
Sales Analysis		
Net Sales($000)	$3,805	$2,105 - 6,106
Percent Sales Change from Prior Year	-8.25%	-12.90 - -0.39%
Sales Mix:		
Direct Sales	11.3%	4.5 - 16.1%
Warehouse Sales - Counter	25.1%	3.7 - 39.9%
Warehouse Sales - Delivery	63.6%	45.3 - 84.6%
TOTAL SALES	100.0%	100.0 - 100.0%
Product Sales Mix		
Plumbing Supplies & Equipment	39.7%	14.3 - 67.3%
Heating & Cooling Supplies & Equipment	11.3%	0.0 - 19.8%
Industrial P-V-F (Pipes-Valves-Fittings)	34.0%	5.0 - 60.3%
Other Industrial Supplies & Equipment	5.2%	0.0 - 5.0%
Other Products	9.7%	0.0 - 15.0%
TOTAL SALES	100.0%	100.0 - 100.0%
Gross Margin		
Gross Margin on Net Sales	25.4%	22.1 - 27.9%
Gross Margin on Direct Shipments	11.0%	8.0 - 16.0%
Gross Margin on Warehouse Sales	26.4%	24.2 - 29.0%
Asset and Financial Management		
Current Asset Turn (Sales/Current Assets)	2.78X	2.28 - 3.42X
Total Debt to Net Worth	78.8%	30.4 - 167.4%
Current Debt to Net Worth	59.8%	23.3 - 108.1%
Current Assets to Current Debt	2.97X	1.98 - 4.79X
Current Assets Minus Inventory/Curr Debt	0.99X	0.69 - 1.88X
Invoice/Transaction Data		
Billing Lines Per Invoice	5.0	4.6 - 7.8
Average Invoice Size	$110	$73 - 216
Average Billing Line	$17.16	$13.74 - 46.10

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: EAST CENTRAL (IN, OH, WESTERN PA, WV)

	TYPICAL	RANGE OF COMMON EXPERIENCE
Personnel Productivity		
Sales Per Employee	$137,244	$121,335 - 176,301
Gross Margin Per Employee	$35,305	$28,942 - 40,396
Average Compensation Per Employee	$19,465	$16,444 - 20,753
Average Fringe Benefits Per Employee	$2,892	$2,364 - 4,001
Compensation & Fringes Per Employee	$21,045	$18,803 - 24,004
Payroll to Net Sales	13.2%	11.8 - 15.1%
Fringe Benefits to Net Sales	2.2%	1.7 - 2.9%
Payroll & Fringes to Net Sales	15.1%	13.3 - 17.6%
Payroll to Gross Margin	54.9%	46.4 - 58.1%
Fringe Benefits to Gross Margin	8.6%	7.6 - 10.5%
Payroll & Fringes to Gross Margin	62.0%	53.9 - 68.5%
Inventory Management		
Cost of Whse Goods Sold to Ave Inventory	2.82X	2.07 - 3.45X
No. of Days Average Inventory Carried	130 Days	106 - 177 Days
Total Cost of Goods Sold to Ave Inventory	3.24X	2.36 - 4.28X
Whse Gross Margin Return on Ave Inventory	96%	76 - 124%
Turn & Earn Profitability Index	74%	58 - 88%
Percent of Firms on LIFO	63.41%	
Accounts Receivable		
Average Collection Period	45 Days	39 - 51 Days
Gross Margin Return on Receivables	216%	177 - 247%
Aging of Receivable Dollars:		
Current	63.0%	54.7 - 72.6%
1-30 Days Past Due	15.3%	10.4 - 20.1%
31-60 Days Past Due	8.1%	4.3 - 9.0%
61-90 Days Past Due	5.3%	1.7 - 8.5%
Over 90 Days Past Due	8.3%	0.2 - 14.6%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current	$873	$631 - 1,668
1-30 Days Past Due	$1,114	$532 - 1,576
31-60 Days Past Due	$980	$482 - 2,018
61-90 Days Past Due	$1,130	$811 - 1,860
Over 90 Days Past Due	$1,624	$753 - 2,061
Total	$949	$715 - 1,672
Aging of Receivable Accounts:		
Current	65.2%	56.9 - 78.6%
1-30 Days Past Due	17.6%	10.2 - 20.2%
31-60 Days Past Due	8.3%	5.2 - 10.3%
61-90 Days Past Due	4.0%	1.8 - 5.2%
Over 90 Days Past Due	4.9%	1.7 - 7.9%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: EAST CENTRAL (IN, OH, WESTERN PA, WV)

	TYPICAL	RANGE OF COMMON EXPERIENCE
Income Statement		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	74.6%	72.1 - 77.9%
Gross Margin	25.4%	22.1 - 27.9%
Operating Expenses:		
Selling Expenses	6.9%	5.3 - 8.8%
Delivery Expenses	1.9%	1.4 - 2.4%
Warehouse Expenses	2.7%	1.8 - 3.6%
General & Administrative Expenses	9.6%	7.7 - 11.2%
Occupancy Expenses	1.6%	1.0 - 2.3%
Other Operating Expenses	0.0%	0.0 - 0.8%
Total Operating Expenses	25.1%	21.4 - 26.8%
Net Operating Profit	0.9%	-1.1 - 2.0%
Non-Operating Income	1.9%	1.1 - 2.5%
Non-Operating Expenses	1.9%	1.4 - 2.9%
Net Profit Before Tax	0.3%	-0.6 - 1.8%
Net Profit After Tax	0.1%	-0.4 - 1.5%
Operating Expense Control		
Total Operating Expense to Net Sales	25.1%	21.4 - 26.8%
Total Operating Expense to Gross Margin	96.5%	92.6 - 104.9%
Non-People Expense to Net Sales	8.5%	6.7 - 10.1%
Non-People Expense to Gross Margin	33.7%	27.1 - 39.6%
Interest Expense		
Interest Expense to Net Sales	0.9%	0.4 - 1.8%
Times Interest Earned	1.3X	0.3 - 3.2X

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: SOUTHERN (AL, FL, GA, KY, MS, NC, SC, TN, VA)

	TYPICAL	RANGE OF COMMON EXPERIENCE
Overall Performance		
Net Profit After Tax to Net Worth	6.27%	1.41 - 9.96%
Total Assets to Net Worth	1.56X	1.39 - 2.54X
Net Profit After Tax to Total Assets	3.71%	1.15 - 5.75%
Net Sales to Total Assets	2.19X	1.97 - 2.93X
Net Profit After Tax to Net Sales	1.30%	0.60 - 2.40%
Net Profit Before Tax to Total Assets	4.63%	1.58 - 7.95%
EBIT to Total Assets	6.92%	3.17 - 11.39%
Sales Analysis		
Net Sales($000)	$4,607	$2,333 - 6,968
Percent Sales Change from Prior Year	-6.35%	-12.46 - 0.28%
Sales Mix:		
Direct Sales	15.9%	4.5 - 24.1%
Warehouse Sales - Counter	28.8%	8.6 - 38.6%
Warehouse Sales - Delivery	55.3%	45.7 - 75.2%
TOTAL SALES	100.0%	100.0 - 100.0%
Product Sales Mix		
Plumbing Supplies & Equipment	63.4%	50.0 - 90.0%
Heating & Cooling Supplies & Equipment	6.6%	0.0 - 10.0%
Industrial P-V-F (Pipes-Valves-Fittings)	19.6%	0.0 - 20.0%
Other Industrial Supplies & Equipment	1.7%	0.0 - 2.0%
Other Products	8.7%	0.0 - 17.0%
TOTAL SALES	100.0%	100.0 - 100.0%
Gross Margin		
Gross Margin on Net Sales	23.3%	20.2 - 25.8%
Gross Margin on Direct Shipments	11.0%	9.2 - 17.1%
Gross Margin on Warehouse Sales	23.1%	21.0 - 26.1%
Asset and Financial Management		
Current Asset Turn (Sales/Current Assets)	2.72X	2.27 - 3.48X
Total Debt to Net Worth	54.5%	38.8 - 144.2%
Current Debt to Net Worth	45.2%	29.1 - 88.9%
Current Assets to Current Debt	3.11X	2.32 - 3.73X
Current Assets Minus Inventory/Curr Debt	1.06X	0.86 - 1.73X
Invoice/Transaction Data		
Billing Lines Per Invoice	5.9	4.3 - 8.0
Average Invoice Size	$163	$113 - 227
Average Billing Line	$25.06	$13.08 - 42.55

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: SOUTHERN (AL, FL, GA, KY, MS, NC, SC, TN, VA)

	TYPICAL	RANGE OF COMMON EXPERIENCE
Personnel Productivity		
Sales Per Employee	$157,656	$116,131 - 190,189
Gross Margin Per Employee	$33,328	$28,656 - 41,487
Average Compensation Per Employee	$17,363	$14,354 - 19,938
Average Fringe Benefits Per Employee	$2,371	$1,972 - 3,243
Compensation & Fringes Per Employee	$20,002	$16,232 - 25,363
Payroll to Net Sales	11.0%	9.7 - 13.7%
Fringe Benefits to Net Sales	1.7%	1.3 - 2.1%
Payroll & Fringes to Net Sales	12.5%	11.1 - 15.4%
Payroll to Gross Margin	50.6%	46.5 - 55.6%
Fringe Benefits to Gross Margin	8.0%	6.0 - 9.6%
Payroll & Fringes to Gross Margin	58.2%	52.1 - 63.8%
Inventory Management		
Cost of Whse Goods Sold to Ave Inventory	3.09X	2.25 - 4.67X
No. of Days Average Inventory Carried	118 Days	78 - 162 Days
Total Cost of Goods Sold to Ave Inventory	3.78X	2.60 - 4.93X
Whse Gross Margin Return on Ave Inventory	106%	75 - 125%
Turn & Earn Profitability Index	79%	56 - 103%
Percent of Firms on LIFO	61.76%	
Accounts Receivable		
Average Collection Period	48 Days	38 - 61 Days
Gross Margin Return on Receivables	173%	125 - 236%
Aging of Receivable Dollars:		
Current	63.1%	51.9 - 71.8%
1-30 Days Past Due	12.8%	5.0 - 19.0%
31-60 Days Past Due	6.8%	3.7 - 9.6%
61-90 Days Past Due	5.9%	1.9 - 8.3%
Over 90 Days Past Due	11.5%	2.1 - 18.4%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current	$1,026	$583 - 1,300
1-30 Days Past Due	$694	$548 - 1,326
31-60 Days Past Due	$834	$469 - 2,024
61-90 Days Past Due	$1,006	$473 - 1,291
Over 90 Days Past Due	$1,276	$821 - 4,507
Total	$1,032	$851 - 1,162
Aging of Receivable Accounts:		
Current	65.9%	57.1 - 74.5%
1-30 Days Past Due	13.3%	5.6 - 19.9%
31-60 Days Past Due	8.0%	5.2 - 9.3%
61-90 Days Past Due	5.0%	2.9 - 7.6%
Over 90 Days Past Due	7.8%	2.6 - 9.5%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: SOUTHERN (AL, FL, GA, KY, MS, NC, SC, TN, VA)

	TYPICAL	RANGE OF COMMON EXPERIENCE
Income Statement		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	77.8%	74.2 - 79.8%
Gross Margin	23.3%	20.2 - 25.8%
Operating Expenses:		
Selling Expenses	5.8%	4.4 - 7.3%
Delivery Expenses	1.9%	1.2 - 2.6%
Warehouse Expenses	1.9%	1.3 - 2.8%
General & Administrative Expenses	7.8%	6.1 - 10.3%
Occupancy Expenses	1.5%	0.7 - 2.1%
Other Operating Expenses	0.0%	0.0 - 1.4%
Total Operating Expenses	20.1%	19.0 - 22.3%
Net Operating Profit	2.3%	0.5 - 3.6%
Non-Operating Income	1.6%	0.9 - 2.8%
Non-Operating Expenses	2.2%	1.4 - 3.2%
Net Profit Before Tax	1.3%	0.2 - 2.8%
Net Profit After Tax	1.3%	0.6 - 2.4%
Operating Expense Control		
Total Operating Expense to Net Sales	20.1%	19.0 - 22.3%
Total Operating Expense to Gross Margin	89.3%	84.6 - 98.0%
Non-People Expense to Net Sales	7.2%	6.4 - 8.3%
Non-People Expense to Gross Margin	32.0%	27.1 - 36.6%
Interest Expense		
Interest Expense to Net Sales	0.8%	0.3 - 1.9%
Times Interest Earned	2.8X	1.3 - 7.4X

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: MICHIGAN (EXCLUDING UPPER MI)

	TYPICAL	RANGE OF COMMON EXPERIENCE
Overall Performance		
Net Profit After Tax to Net Worth	-1.54%	-6.90 - 3.74%
Total Assets to Net Worth	1.51X	1.34 - 1.75X
Net Profit After Tax to Total Assets	-0.96%	-4.77 - 2.56%
Net Sales to Total Assets	2.11X	1.80 - 2.42X
Net Profit After Tax to Net Sales	-0.40%	-1.80 - 1.80%
Net Profit Before Tax to Total Assets	-2.15%	-5.95 - 3.07%
EBIT to Total Assets	0.17%	-2.54 - 3.65%
Sales Analysis		
Net Sales($000)	$4,719	$2,794 - 7,722
Percent Sales Change from Prior Year	-9.83%	-22.29 - -6.24%
Sales Mix:		
Direct Sales	13.7%	3.1 - 22.9%
Warehouse Sales - Counter	20.6%	2.1 - 26.5%
Warehouse Sales - Delivery	65.7%	59.2 - 78.8%
TOTAL SALES	100.0%	100.0 - 100.0%
Product Sales Mix		
Plumbing Supplies & Equipment	42.2%	16.5 - 65.0%
Heating & Cooling Supplies & Equipment	12.2%	0.0 - 21.0%
Industrial P-V-F (Pipes-Valves-Fittings)	37.2%	15.0 - 55.5%
Other Industrial Supplies & Equipment	2.2%	0.0 - 3.5%
Other Products	6.2%	0.0 - 11.0%
TOTAL SALES	100.0%	100.0 - 100.0%
Gross Margin		
Gross Margin on Net Sales	25.5%	23.9 - 27.0%
Gross Margin on Direct Shipments	10.7%	8.1 - 15.6%
Gross Margin on Warehouse Sales	27.0%	25.1 - 28.2%
Asset and Financial Management		
Current Asset Turn (Sales/Current Assets)	2.47X	2.23 - 2.77X
Total Debt to Net Worth	51.2%	33.5 - 75.0%
Current Debt to Net Worth	39.3%	30.4 - 63.6%
Current Assets to Current Debt	3.07X	2.14 - 4.06X
Current Assets Minus Inventory/Curr Debt	1.39X	0.67 - 1.84X
Invoice/Transaction Data		
Billing Lines Per Invoice	4.3	4.0 - 6.3
Average Invoice Size	$192	$125 - 274
Average Billing Line	$35.07	$18.42 - 57.74

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: MICHIGAN (EXCLUDING UPPER MI)

	TYPICAL	RANGE OF COMMON EXPERIENCE
Personnel Productivity		
Sales Per Employee	$180,589	$132,447 - 201,963
Gross Margin Per Employee	$45,916	$34,562 - 51,025
Average Compensation Per Employee	$21,582	$19,076 - 25,047
Average Fringe Benefits Per Employee	$4,362	$3,131 - 5,864
Compensation & Fringes Per Employee	$25,608	$22,101 - 31,009
Payroll to Net Sales	14.2%	12.3 - 15.0%
Fringe Benefits to Net Sales	2.9%	1.9 - 3.7%
Payroll & Fringes to Net Sales	16.1%	14.8 - 19.0%
Payroll to Gross Margin	50.3%	48.8 - 58.7%
Fringe Benefits to Gross Margin	11.1%	6.9 - 13.9%
Payroll & Fringes to Gross Margin	61.9%	58.4 - 69.0%
Inventory Management		
Cost of Whse Goods Sold to Ave Inventory	2.49X	2.29 - 4.22X
No. of Days Average Inventory Carried	147 Days	89 - 159 Days
Total Cost of Goods Sold to Ave Inventory	3.15X	2.74 - 3.77X
Whse Gross Margin Return on Ave Inventory	96%	92 - 139%
Turn & Earn Profitability Index	69%	66 - 105%
Percent of Firms on LIFO	57.14%	
Accounts Receivable		
Average Collection Period	53 Days	43 - 61 Days
Gross Margin Return on Receivables	188%	143 - 218%
Aging of Receivable Dollars:		
Current	54.7%	50.3 - 61.9%
1-30 Days Past Due	19.6%	16.7 - 22.2%
31-60 Days Past Due	9.3%	5.7 - 12.3%
61-90 Days Past Due	5.4%	5.0 - 7.1%
Over 90 Days Past Due	10.9%	5.5 - 15.5%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current	$799	$641 - 1,787
1-30 Days Past Due	$1,101	$735 - 2,726
31-60 Days Past Due	$1,236	$871 - 3,478
61-90 Days Past Due	$1,618	$1,033 - 1,698
Over 90 Days Past Due	$1,948	$1,431 - 2,412
Total	$916	$758 - 1,761
Aging of Receivable Accounts:		
Current	64.9%	51.6 - 74.6%
1-30 Days Past Due	15.1%	14.2 - 19.7%
31-60 Days Past Due	9.9%	4.0 - 16.1%
61-90 Days Past Due	4.9%	1.3 - 8.7%
Over 90 Days Past Due	5.3%	0.7 - 8.2%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: MICHIGAN (EXCLUDING UPPER MI)

	TYPICAL	RANGE OF COMMON EXPERIENCE
Income Statement		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	74.6%	73.0 - 76.1%
Gross Margin	25.5%	23.9 - 27.0%
Operating Expenses:		
Selling Expenses	7.3%	6.6 - 9.9%
Delivery Expenses	2.6%	0.3 - 2.8%
Warehouse Expenses	4.0%	2.0 - 4.6%
General & Administrative Expenses	9.4%	6.1 - 11.4%
Occupancy Expenses	2.2%	0.8 - 3.6%
Other Operating Expenses	0.0%	0.0 - 2.3%
Total Operating Expenses	25.7%	22.8 - 27.4%
Net Operating Profit	-0.3%	-1.0 - 2.2%
Non-Operating Income	1.5%	0.9 - 2.5%
Non-Operating Expenses	1.7%	0.7 - 2.9%
Net Profit Before Tax	-0.8%	-2.2 - 2.3%
Net Profit After Tax	-0.4%	-1.8 - 1.8%
Operating Expense Control		
Total Operating Expense to Net Sales	25.7%	22.8 - 27.4%
Total Operating Expense to Gross Margin	101.1%	90.9 - 103.9%
Non-People Expense to Net Sales	9.0%	8.4 - 10.3%
Non-People Expense to Gross Margin	36.7%	31.4 - 41.2%
Interest Expense		
Interest Expense to Net Sales	1.0%	0.5 - 1.9%
Times Interest Earned	0.0X	-0.7 - 2.2X

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: METRO CHICAGO & NORTHERN IL

	TYPICAL	RANGE OF COMMON EXPERIENCE
Overall Performance		
Net Profit After Tax to Net Worth	3.34%	-5.02 - 4.97%
Total Assets to Net Worth	1.47X	1.33 - 2.20X
Net Profit After Tax to Total Assets	1.97%	-3.78 - 3.48%
Net Sales to Total Assets	2.02X	1.62 - 2.30X
Net Profit After Tax to Net Sales	1.10%	-1.70 - 1.70%
Net Profit Before Tax to Total Assets	2.24%	-3.73 - 4.75%
EBIT to Total Assets	4.38%	-1.67 - 7.06%
Sales Analysis		
Net Sales($000)	$3,802	$2,910 - 7,318
Percent Sales Change from Prior Year	-4.12%	-10.05 - 12.42%
Sales Mix:		
Direct Sales	4.9%	Insufficient Data
Warehouse Sales - Counter	27.3%	Insufficient Data
Warehouse Sales - Delivery	67.8%	Insufficient Data
TOTAL SALES	100.0%	100.0 - 100.0%
Product Sales Mix		
Plumbing Supplies & Equipment	28.8%	6.3 - 56.5%
Heating & Cooling Supplies & Equipment	22.3%	0.0 - 28.8%
Industrial P-V-F (Pipes-Valves-Fittings)	42.9%	6.3 - 83.3%
Other Industrial Supplies & Equipment	1.9%	0.0 - 5.0%
Other Products	4.3%	0.0 - 3.0%
TOTAL SALES	100.0%	100.0 - 100.0%
Gross Margin		
Gross Margin on Net Sales	28.8%	23.3 - 34.9%
Gross Margin on Direct Shipments	13.0%	Insufficient Data
Gross Margin on Warehouse Sales	32.2%	Insufficient Data
Asset and Financial Management		
Current Asset Turn (Sales/Current Assets)	2.28X	1.92 - 2.81X
Total Debt to Net Worth	47.3%	33.2 - 120.2%
Current Debt to Net Worth	38.7%	27.9 - 116.3%
Current Assets to Current Debt	2.95X	1.46 - 4.41X
Current Assets Minus Inventory/Curr Debt	1.32X	0.51 - 2.10X
Invoice/Transaction Data		
Billing Lines Per Invoice	5.5	4.5 - 9.5
Average Invoice Size	$240	Insufficient Data
Average Billing Line	$40.46	Insufficient Data

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: METRO CHICAGO & NORTHERN IL

	TYPICAL	RANGE OF COMMON EXPERIENCE
Personnel Productivity		
Sales Per Employee	$183,945	$143,740 - 209,531
Gross Margin Per Employee	$49,275	$37,448 - 51,264
Average Compensation Per Employee	$26,730	$21,556 - 27,600
Average Fringe Benefits Per Employee	$4,517	$3,459 - 7,839
Compensation & Fringes Per Employee	$31,840	$24,988 - 34,898
Payroll to Net Sales	14.4%	13.0 - 17.8%
Fringe Benefits to Net Sales	2.6%	2.1 - 4.2%
Payroll & Fringes to Net Sales	17.0%	15.0 - 22.0%
Payroll to Gross Margin	53.4%	52.7 - 58.5%
Fringe Benefits to Gross Margin	9.9%	8.8 - 11.7%
Payroll & Fringes to Gross Margin	64.6%	61.8 - 69.7%
Inventory Management		
Cost of Whse Goods Sold to Ave Inventory	2.21X	Insufficient Data
No. of Days Average Inventory Carried	165 Days	Insufficient Data
Total Cost of Goods Sold to Ave Inventory	3.08X	2.18 - 3.57X
Whse Gross Margin Return on Ave Inventory	105%	Insufficient Data
Turn & Earn Profitability Index	67%	Insufficient Data
Percent of Firms on LIFO	62.50%	
Accounts Receivable		
Average Collection Period	45 Days	Insufficient Data
Gross Margin Return on Receivables	208%	Insufficient Data
Aging of Receivable Dollars:		
Current	53.8%	Insufficient Data
1-30 Days Past Due	11.9%	Insufficient Data
31-60 Days Past Due	13.7%	Insufficient Data
61-90 Days Past Due	6.1%	Insufficient Data
Over 90 Days Past Due	14.6%	Insufficient Data
Total	100.0%	Insufficient Data
Average Account Balance:		
Current	$816	Insufficient Data
1-30 Days Past Due	$727	Insufficient Data
31-60 Days Past Due	$1,597	Insufficient Data
61-90 Days Past Due	$1,300	Insufficient Data
Over 90 Days Past Due	$2,510	Insufficient Data
Total	$1,043	Insufficient Data
Aging of Receivable Accounts:		
Current	42.5%	Insufficient Data
1-30 Days Past Due	31.1%	Insufficient Data
31-60 Days Past Due	10.8%	Insufficient Data
61-90 Days Past Due	4.6%	Insufficient Data
Over 90 Days Past Due	11.1%	Insufficient Data
Total	100.0%	Insufficient Data

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: METRO CHICAGO & NORTHERN IL

	TYPICAL	RANGE OF COMMON EXPERIENCE
Income Statement		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	70.8%	65.0 - 76.6%
Gross Margin	28.8%	23.3 - 34.9%
Operating Expenses:		
Selling Expenses	5.9%	4.8 - 7.4%
Delivery Expenses	2.9%	1.7 - 3.9%
Warehouse Expenses	3.5%	3.1 - 4.3%
General & Administrative Expenses	9.1%	6.8 - 19.3%
Occupancy Expenses	1.7%	0.0 - 3.5%
Other Operating Expenses	0.0%	0.0 - 1.8%
Total Operating Expenses	26.9%	23.8 - 34.5%
Net Operating Profit	-0.4%	-2.3 - 2.3%
Non-Operating Income	1.8%	0.5 - 2.5%
Non-Operating Expenses	1.4%	0.0 - 3.0%
Net Profit Before Tax	0.8%	-2.0 - 2.2%
Net Profit After Tax	1.1%	-1.7 - 1.7%
Operating Expense Control		
Total Operating Expense to Net Sales	26.9%	23.8 - 34.5%
Total Operating Expense to Gross Margin	101.9%	92.2 - 110.2%
Non-People Expense to Net Sales	9.1%	7.3 - 13.2%
Non-People Expense to Gross Margin	37.8%	23.3 - 40.8%
Interest Expense		
Interest Expense to Net Sales	1.0%	0.5 - 2.0%
Times Interest Earned	2.0X	-0.4 - 5.1X

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: MID AMERICA (IA, KS, MN, MO, NE, ND, SD, UPPER MI, WI)

	TYPICAL	RANGE OF COMMON EXPERIENCE
Overall Performance		
Net Profit After Tax to Net Worth	2.90%	-1.78 - 9.39%
Total Assets to Net Worth	1.71X	1.40 - 2.57X
Net Profit After Tax to Total Assets	1.78%	-1.15 - 4.46%
Net Sales to Total Assets	2.31X	1.94 - 2.67X
Net Profit After Tax to Net Sales	0.60%	-0.60 - 2.00%
Net Profit Before Tax to Total Assets	2.00%	-1.79 - 6.01%
EBIT to Total Assets	4.05%	0.91 - 8.19%
Sales Analysis		
Net Sales($000)	$4,312	$2,773 - 10,993
Percent Sales Change from Prior Year	-5.09%	-12.60 - -1.11%
Sales Mix:		
Direct Sales	14.3%	6.2 - 18.3%
Warehouse Sales - Counter	26.2%	6.6 - 37.9%
Warehouse Sales - Delivery	59.5%	53.4 - 73.4%
TOTAL SALES	100.0%	100.0 - 100.0%
Product Sales Mix		
Plumbing Supplies & Equipment	52.6%	38.2 - 72.8%
Heating & Cooling Supplies & Equipment	15.8%	4.7 - 25.3%
Industrial P-V-F (Pipes-Valves-Fittings)	18.4%	0.0 - 25.3%
Other Industrial Supplies & Equipment	5.2%	0.0 - 5.0%
Other Products	8.1%	0.0 - 8.5%
TOTAL SALES	100.0%	100.0 - 100.0%
Gross Margin		
Gross Margin on Net Sales	24.8%	21.7 - 26.8%
Gross Margin on Direct Shipments	12.8%	9.8 - 15.7%
Gross Margin on Warehouse Sales	25.4%	23.6 - 28.2%
Asset and Financial Management		
Current Asset Turn (Sales/Current Assets)	2.66X	2.26 - 3.20X
Total Debt to Net Worth	71.2%	40.5 - 157.7%
Current Debt to Net Worth	42.7%	29.7 - 106.1%
Current Assets to Current Debt	3.10X	2.04 - 4.28X
Current Assets Minus Inventory/Curr Debt	1.29X	0.86 - 1.88X
Invoice/Transaction Data		
Billing Lines Per Invoice	5.5	4.0 - 7.5
Average Invoice Size	$153	$112 - 214
Average Billing Line	$27.84	$15.46 - 45.04

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: MID AMERICA (IA, KS, MN, MO, NE, ND, SD, UPPER MI, WI)

	TYPICAL	RANGE OF COMMON EXPERIENCE
Personnel Productivity		
Sales Per Employee	$146,772	$129,361 - 193,150
Gross Margin Per Employee	$36,920	$32,416 - 43,008
Average Compensation Per Employee	$19,801	$18,045 - 22,087
Average Fringe Benefits Per Employee	$3,240	$2,629 - 4,260
Compensation & Fringes Per Employee	$22,942	$19,731 - 26,010
Payroll to Net Sales	12.8%	11.5 - 14.9%
Fringe Benefits to Net Sales	2.1%	1.6 - 2.7%
Payroll & Fringes to Net Sales	14.6%	12.9 - 17.6%
Payroll to Gross Margin	52.6%	47.8 - 56.2%
Fringe Benefits to Gross Margin	8.6%	6.9 - 10.3%
Payroll & Fringes to Gross Margin	60.6%	55.5 - 65.9%
Inventory Management		
Cost of Whse Goods Sold to Ave Inventory	2.83X	2.28 - 3.30X
No. of Days Average Inventory Carried	129 Days	110 - 160 Days
Total Cost of Goods Sold to Ave Inventory	3.32X	2.64 - 4.23X
Whse Gross Margin Return on Ave Inventory	94%	83 - 122%
Turn & Earn Profitability Index	74%	60 - 86%
Percent of Firms on LIFO	61.29%	
Accounts Receivable		
Average Collection Period	47 Days	40 - 55 Days
Gross Margin Return on Receivables	190%	155 - 227%
Aging of Receivable Dollars:		
Current	59.1%	52.0 - 72.8%
1-30 Days Past Due	17.9%	10.7 - 20.6%
31-60 Days Past Due	9.3%	5.0 - 12.6%
61-90 Days Past Due	6.0%	2.6 - 8.9%
Over 90 Days Past Due	7.7%	2.7 - 9.9%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current	$901	$552 - 1,469
1-30 Days Past Due	$1,071	$705 - 1,838
31-60 Days Past Due	$1,275	$611 - 1,614
61-90 Days Past Due	$1,074	$671 - 1,671
Over 90 Days Past Due	$1,299	$844 - 2,783
Total	$851	$684 - 1,607
Aging of Receivable Accounts:		
Current	63.9%	59.0 - 79.0%
1-30 Days Past Due	16.8%	8.6 - 19.2%
31-60 Days Past Due	8.6%	4.0 - 10.0%
61-90 Days Past Due	5.0%	2.4 - 6.8%
Over 90 Days Past Due	5.7%	2.3 - 7.3%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: MID AMERICA (IA, KS, MN, MO, NE, ND, SD, UPPER MI, WI)

	TYPICAL	RANGE OF COMMON EXPERIENCE
Income Statement		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	75.3%	73.1 - 78.3%
Gross Margin	24.8%	21.7 - 26.8%
Operating Expenses:		
Selling Expenses	6.6%	5.3 - 8.2%
Delivery Expenses	1.6%	1.2 - 2.2%
Warehouse Expenses	3.0%	1.9 - 3.8%
General & Administrative Expenses	9.8%	7.5 - 10.8%
Occupancy Expenses	1.7%	1.3 - 2.7%
Other Operating Expenses	0.0%	0.0 - 0.5%
Total Operating Expenses	23.3%	20.8 - 26.7%
Net Operating Profit	0.6%	-0.4 - 2.9%
Non-Operating Income	2.3%	1.4 - 3.2%
Non-Operating Expenses	2.3%	1.2 - 3.2%
Net Profit Before Tax	0.8%	-0.7 - 2.7%
Net Profit After Tax	0.6%	-0.6 - 2.0%
Operating Expense Control		
Total Operating Expense to Net Sales	23.3%	20.8 - 26.7%
Total Operating Expense to Gross Margin	96.2%	88.7 - 101.5%
Non-People Expense to Net Sales	7.9%	6.2 - 9.5%
Non-People Expense to Gross Margin	32.0%	26.1 - 33.4%
Interest Expense		
Interest Expense to Net Sales	1.2%	0.7 - 2.4%
Times Interest Earned	1.5X	0.3 - 2.3X

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: LOUISIANA, TEXAS, NEW MEXICO, OKLAHOMA & ARKANSAS

	TYPICAL	RANGE OF COMMON EXPERIENCE
Overall Performance		
Net Profit After Tax to Net Worth	5.52%	-3.18 - 12.41%
Total Assets to Net Worth	1.83X	1.42 - 3.43X
Net Profit After Tax to Total Assets	3.29%	-1.40 - 6.80%
Net Sales to Total Assets	2.80X	2.41 - 3.59X
Net Profit After Tax to Net Sales	1.10%	-0.90 - 2.70%
Net Profit Before Tax to Total Assets	4.70%	-3.08 - 11.36%
EBIT to Total Assets	9.17%	3.96 - 12.90%
Sales Analysis		
Net Sales($000)	$4,754	$2,994 - 13,989
Percent Sales Change from Prior Year	0.96%	-6.62 - 14.78%
Sales Mix:		
Direct Sales	12.9%	4.5 - 20.5%
Warehouse Sales - Counter	25.3%	9.0 - 33.6%
Warehouse Sales - Delivery	61.9%	45.1 - 75.0%
TOTAL SALES	100.0%	100.0 - 100.0%
Product Sales Mix		
Plumbing Supplies & Equipment	65.5%	50.0 - 85.0%
Heating & Cooling Supplies & Equipment	10.2%	0.0 - 20.0%
Industrial P-V-F (Pipes-Valves-Fittings)	12.6%	0.0 - 20.0%
Other Industrial Supplies & Equipment	6.4%	0.0 - 10.0%
Other Products	5.3%	0.0 - 12.3%
TOTAL SALES	100.0%	100.0 - 100.0%
Gross Margin		
Gross Margin on Net Sales	22.3%	18.7 - 26.5%
Gross Margin on Direct Shipments	12.6%	9.3 - 15.0%
Gross Margin on Warehouse Sales	24.6%	20.5 - 28.6%
Asset and Financial Management		
Current Asset Turn (Sales/Current Assets)	3.34X	3.02 - 4.18X
Total Debt to Net Worth	82.7%	41.3 - 203.2%
Current Debt to Net Worth	66.9%	40.3 - 91.4%
Current Assets to Current Debt	2.50X	1.85 - 3.32X
Current Assets Minus Inventory/Curr Debt	1.28X	0.75 - 1.50X
Invoice/Transaction Data		
Billing Lines Per Invoice	6.4	4.4 - 8.1
Average Invoice Size	$154	$105 - 336
Average Billing Line	$23.50	$11.22 - 64.56

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: LOUISIANA, TEXAS, NEW MEXICO, OKLAHOMA & ARKANSAS

	TYPICAL	RANGE OF COMMON EXPERIENCE
Personnel Productivity		
Sales Per Employee	$179,660	$146,198 - 239,573
Gross Margin Per Employee	$38,453	$32,817 - 49,166
Average Compensation Per Employee	$18,288	$15,037 - 20,965
Average Fringe Benefits Per Employee	$2,391	$2,000 - 3,505
Compensation & Fringes Per Employee	$21,162	$16,585 - 24,416
Payroll to Net Sales	10.4%	8.5 - 12.8%
Fringe Benefits to Net Sales	1.6%	1.0 - 2.1%
Payroll & Fringes to Net Sales	11.4%	9.8 - 14.0%
Payroll to Gross Margin	45.4%	41.7 - 53.6%
Fringe Benefits to Gross Margin	6.8%	5.3 - 9.0%
Payroll & Fringes to Gross Margin	51.9%	44.2 - 60.3%
Inventory Management		
Cost of Whse Goods Sold to Ave Inventory	4.18X	3.43 - 5.77X
No. of Days Average Inventory Carried	87 Days	64 - 107 Days
Total Cost of Goods Sold to Ave Inventory	5.31X	4.05 - 6.89X
Whse Gross Margin Return on Ave Inventory	130%	106 - 173%
Turn & Earn Profitability Index	96%	83 - 125%
Percent of Firms on LIFO	52.17%	
Accounts Receivable		
Average Collection Period	43 Days	41 - 51 Days
Gross Margin Return on Receivables	193%	156 - 234%
Aging of Receivable Dollars:		
Current	67.9%	57.3 - 78.5%
1-30 Days Past Due	12.4%	3.8 - 19.0%
31-60 Days Past Due	8.2%	3.2 - 12.7%
61-90 Days Past Due	3.4%	1.5 - 4.3%
Over 90 Days Past Due	8.1%	1.1 - 12.8%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current	$961	$394 - 1,533
1-30 Days Past Due	$1,126	$524 - 1,914
31-60 Days Past Due	$733	$400 - 1,383
61-90 Days Past Due	$1,004	$649 - 1,712
Over 90 Days Past Due	$1,138	$614 - 2,413
Total	$995	$502 - 1,464
Aging of Receivable Accounts:		
Current	71.8%	55.5 - 84.2%
1-30 Days Past Due	11.6%	3.7 - 18.8%
31-60 Days Past Due	7.7%	3.5 - 10.8%
61-90 Days Past Due	3.3%	1.3 - 4.8%
Over 90 Days Past Due	5.6%	0.8 - 9.0%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: LOUISIANA, TEXAS, NEW MEXICO, OKLAHOMA & ARKANSAS

	TYPICAL	RANGE OF COMMON EXPERIENCE
Income Statement		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	78.5%	73.5 - 81.3%
Gross Margin	22.3%	18.7 - 26.5%
Operating Expenses:		
Selling Expenses	4.8%	3.4 - 5.8%
Delivery Expenses	1.9%	0.9 - 2.8%
Warehouse Expenses	2.1%	1.7 - 2.9%
General & Administrative Expenses	8.7%	6.5 - 10.2%
Occupancy Expenses	1.3%	0.2 - 1.9%
Other Operating Expenses	0.0%	0.0 - 1.2%
Total Operating Expenses	19.1%	17.6 - 22.9%
Net Operating Profit	2.1%	0.0 - 3.4%
Non-Operating Income	2.2%	0.8 - 2.6%
Non-Operating Expenses	1.8%	0.9 - 3.4%
Net Profit Before Tax	1.9%	-1.3 - 4.1%
Net Profit After Tax	1.1%	-0.9 - 2.7%
Operating Expense Control		
Total Operating Expense to Net Sales	19.1%	17.6 - 22.9%
Total Operating Expense to Gross Margin	91.0%	81.6 - 99.8%
Non-People Expense to Net Sales	7.9%	6.5 - 8.8%
Non-People Expense to Gross Margin	33.8%	28.4 - 39.9%
Interest Expense		
Interest Expense to Net Sales	0.8%	0.1 - 2.2%
Times Interest Earned	3.5X	0.8 - 40.2X

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: ROCKY MOUNTAIN (CO, ID, MT, UT, WY)

	TYPICAL	RANGE OF COMMON EXPERIENCE
Overall Performance		
Net Profit After Tax to Net Worth	8.85%	4.33 - 15.84%
Total Assets to Net Worth	2.24X	1.32 - 3.90X
Net Profit After Tax to Total Assets	5.32%	2.19 - 7.46%
Net Sales to Total Assets	2.77X	2.05 - 3.57X
Net Profit After Tax to Net Sales	1.70%	0.80 - 3.30%
Net Profit Before Tax to Total Assets	7.18%	2.87 - 12.80%
EBIT to Total Assets	9.38%	5.58 - 17.57%
Sales Analysis		
Net Sales($000)	$5,140	$2,251 - 9,596
Percent Sales Change from Prior Year	-5.07%	-10.67 - 8.20%
Sales Mix:		
Direct Sales	10.7%	3.3 - 16.6%
Warehouse Sales - Counter	32.9%	17.6 - 56.6%
Warehouse Sales - Delivery	56.4%	35.7 - 73.2%
TOTAL SALES	100.0%	100.0 - 100.0%
Product Sales Mix		
Plumbing Supplies & Equipment	54.2%	38.0 - 75.0%
Heating & Cooling Supplies & Equipment	8.3%	0.0 - 12.0%
Industrial P-V-F (Pipes-Valves-Fittings)	16.4%	2.0 - 15.0%
Other Industrial Supplies & Equipment	8.0%	0.0 - 10.0%
Other Products	13.2%	0.0 - 20.0%
TOTAL SALES	100.0%	100.0 - 100.0%
Gross Margin		
Gross Margin on Net Sales	23.8%	21.4 - 26.5%
Gross Margin on Direct Shipments	10.5%	9.5 - 12.4%
Gross Margin on Warehouse Sales	26.2%	22.3 - 27.9%
Asset and Financial Management		
Current Asset Turn (Sales/Current Assets)	3.27X	2.68 - 3.76X
Total Debt to Net Worth	124.3%	32.3 - 290.0%
Current Debt to Net Worth	65.6%	16.7 - 168.2%
Current Assets to Current Debt	2.98X	1.66 - 5.14X
Current Assets Minus Inventory/Curr Debt	1.45X	0.79 - 2.29X
Invoice/Transaction Data		
Billing Lines Per Invoice	7.0	5.3 - 8.9
Average Invoice Size	$193	$101 - 259
Average Billing Line	$23.87	$15.19 - 39.43

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: ROCKY MOUNTAIN (CO, ID, MT, UT, WY)

	TYPICAL	RANGE OF COMMON EXPERIENCE
Personnel Productivity		
Sales Per Employee	$200,722	$166,635 - 250,840
Gross Margin Per Employee	$49,565	$40,294 - 59,145
Average Compensation Per Employee	$22,436	$20,685 - 29,179
Average Fringe Benefits Per Employee	$3,326	$2,520 - 5,429
Compensation & Fringes Per Employee	$25,958	$24,932 - 33,389
Payroll to Net Sales	10.7%	9.4 - 12.6%
Fringe Benefits to Net Sales	1.7%	1.1 - 2.8%
Payroll & Fringes to Net Sales	12.5%	10.7 - 14.4%
Payroll to Gross Margin	47.7%	41.6 - 53.5%
Fringe Benefits to Gross Margin	7.0%	5.3 - 10.1%
Payroll & Fringes to Gross Margin	55.3%	49.1 - 59.2%
Inventory Management		
Cost of Whse Goods Sold to Ave Inventory	4.00X	3.07 - 4.75X
No. of Days Average Inventory Carried	91 Days	77 - 130 Days
Total Cost of Goods Sold to Ave Inventory	5.06X	3.97 - 6.91X
Whse Gross Margin Return on Ave Inventory	137%	101 - 142%
Turn & Earn Profitability Index	102%	64 - 107%
Percent of Firms on LIFO	9.09%	
Accounts Receivable		
Average Collection Period	53 Days	39 - 64 Days
Gross Margin Return on Receivables	182%	147 - 216%
Aging of Receivable Dollars:		
Current	65.4%	54.0 - 78.3%
1-30 Days Past Due	16.1%	12.4 - 20.1%
31-60 Days Past Due	6.1%	3.2 - 8.9%
61-90 Days Past Due	4.5%	1.6 - 7.1%
Over 90 Days Past Due	7.9%	1.9 - 12.9%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current	$791	$712 - 1,712
1-30 Days Past Due	$1,502	$1,309 - 2,463
31-60 Days Past Due	$1,309	$1,146 - 1,667
61-90 Days Past Due	$1,294	$592 - 1,970
Over 90 Days Past Due	$1,222	Insufficient Data
Total	$1,102	$749 - 1,736
Aging of Receivable Accounts:		
Current	73.7%	66.9 - 82.7%
1-30 Days Past Due	15.6%	7.5 - 19.9%
31-60 Days Past Due	4.5%	2.5 - 7.7%
61-90 Days Past Due	3.4%	1.6 - 5.4%
Over 90 Days Past Due	2.8%	0.1 - 4.7%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: ROCKY MOUNTAIN (CO, ID, MT, UT, WY)

Income Statement

	TYPICAL	RANGE OF COMMON EXPERIENCE
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	76.0%	73.5 - 78.6%
Gross Margin	23.8%	21.4 - 26.5%
Operating Expenses:		
Selling Expenses	5.9%	3.8 - 7.6%
Delivery Expenses	1.6%	1.0 - 1.7%
Warehouse Expenses	1.5%	0.1 - 2.2%
General & Administrative Expenses	7.6%	4.0 - 11.5%
Occupancy Expenses	1.6%	1.2 - 3.8%
Other Operating Expenses	0.0%	0.0 - 0.6%
Total Operating Expenses	19.2%	15.5 - 25.2%
Net Operating Profit	2.3%	1.3 - 6.2%
Non-Operating Income	1.8%	1.2 - 2.9%
Non-Operating Expenses	2.3%	1.5 - 3.5%
Net Profit Before Tax	2.4%	0.9 - 5.4%
Net Profit After Tax	1.7%	0.8 - 3.3%

Operating Expense Control

	TYPICAL	RANGE OF COMMON EXPERIENCE
Total Operating Expense to Net Sales	19.2%	15.5 - 25.2%
Total Operating Expense to Gross Margin	90.2%	73.9 - 94.4%
Non-People Expense to Net Sales	6.5%	4.5 - 9.0%
Non-People Expense to Gross Margin	28.6%	20.1 - 37.0%

Interest Expense

	TYPICAL	RANGE OF COMMON EXPERIENCE
Interest Expense to Net Sales	1.4%	0.3 - 1.9%
Times Interest Earned	2.9X	1.7 - 8.3X

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: PACIFIC NORTHWEST (AK, OR, WA)

	TYPICAL	RANGE OF COMMON EXPERIENCE
Overall Performance		
Net Profit After Tax to Net Worth	4.59%	-10.02 - 7.52%
Total Assets to Net Worth	2.05X	1.54 - 2.61X
Net Profit After Tax to Total Assets	2.74%	-3.10 - 4.89%
Net Sales to Total Assets	2.65X	2.16 - 3.20X
Net Profit After Tax to Net Sales	1.20%	-1.20 - 2.10%
Net Profit Before Tax to Total Assets	4.46%	-4.76 - 8.13%
EBIT to Total Assets	5.90%	2.56 - 9.60%
Sales Analysis		
Net Sales($000)	$14,695	$5,519 - 31,005
Percent Sales Change from Prior Year	-3.13%	-12.19 - 3.52%
Sales Mix:		
Direct Sales	15.5%	2.0 - 19.1%
Warehouse Sales - Counter	20.9%	5.2 - 23.1%
Warehouse Sales - Delivery	63.6%	45.3 - 88.5%
TOTAL SALES	100.0%	100.0 - 100.0%
Product Sales Mix		
Plumbing Supplies & Equipment	49.8%	9.5 - 75.0%
Heating & Cooling Supplies & Equipment	5.5%	0.0 - 6.3%
Industrial P-V-F (Pipes-Valves-Fittings)	21.3%	0.0 - 42.5%
Other Industrial Supplies & Equipment	0.0%	0.0 - 0.0%
Other Products	23.4%	0.0 - 46.3%
TOTAL SALES	100.0%	100.0 - 100.0%
Gross Margin		
Gross Margin on Net Sales	24.6%	19.0 - 27.9%
Gross Margin on Direct Shipments	11.0%	Insufficient Data
Gross Margin on Warehouse Sales	26.3%	21.0 - 31.8%
Asset and Financial Management		
Current Asset Turn (Sales/Current Assets)	3.07X	2.44 - 3.40X
Total Debt to Net Worth	104.7%	54.0 - 161.9%
Current Debt to Net Worth	81.7%	41.3 - 132.4%
Current Assets to Current Debt	2.47X	1.67 - 3.09X
Current Assets Minus Inventory/Curr Debt	1.11X	0.59 - 1.49X
Invoice/Transaction Data		
Billing Lines Per Invoice	5.0	4.0 - 8.0
Average Invoice Size	$192	$129 - 551
Average Billing Line	$41.20	$20.35 - 54.08

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: PACIFIC NORTHWEST (AK, OR, WA)

	TYPICAL	RANGE OF COMMON EXPERIENCE
Personnel Productivity		
Sales Per Employee	$173,946	$144,334 - 248,883
Gross Margin Per Employee	$42,364	$33,419 - 54,714
Average Compensation Per Employee	$21,990	$18,931 - 23,355
Average Fringe Benefits Per Employee	$4,114	$2,738 - 5,527
Compensation & Fringes Per Employee	$25,994	$22,807 - 27,668
Payroll to Net Sales	12.2%	9.6 - 13.9%
Fringe Benefits to Net Sales	1.9%	1.6 - 3.4%
Payroll & Fringes to Net Sales	14.2%	11.3 - 16.6%
Payroll to Gross Margin	50.1%	45.1 - 64.4%
Fringe Benefits to Gross Margin	9.0%	7.9 - 10.8%
Payroll & Fringes to Gross Margin	59.1%	53.7 - 74.7%
Inventory Management		
Cost of Whse Goods Sold to Ave Inventory	2.94X	2.52 - 3.27X
No. of Days Average Inventory Carried	125 Days	112 - 145 Days
Total Cost of Goods Sold to Ave Inventory	3.85X	2.74 - 4.42X
Whse Gross Margin Return on Ave Inventory	123%	82 - 155%
Turn & Earn Profitability Index	89%	65 - 96%
Percent of Firms on LIFO	66.67%	
Accounts Receivable		
Average Collection Period	39 Days	34 - 50 Days
Gross Margin Return on Receivables	196%	153 - 244%
Aging of Receivable Dollars:		
Current	51.3%	45.7 - 63.1%
1-30 Days Past Due	19.6%	11.5 - 19.7%
31-60 Days Past Due	12.0%	5.5 - 18.0%
61-90 Days Past Due	9.2%	5.2 - 10.7%
Over 90 Days Past Due	8.0%	0.0 - 16.2%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current	$1,235	Insufficient Data
1-30 Days Past Due	$1,322	Insufficient Data
31-60 Days Past Due	$1,941	Insufficient Data
61-90 Days Past Due	$2,350	Insufficient Data
Over 90 Days Past Due	$2,424	Insufficient Data
Total	$1,468	Insufficient Data
Aging of Receivable Accounts:		
Current	55.3%	Insufficient Data
1-30 Days Past Due	24.8%	Insufficient Data
31-60 Days Past Due	9.6%	Insufficient Data
61-90 Days Past Due	4.1%	Insufficient Data
Over 90 Days Past Due	6.2%	Insufficient Data
Total	100.0%	Insufficient Data

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: PACIFIC NORTHWEST (AK, OR, WA)

	TYPICAL	RANGE OF COMMON EXPERIENCE
Income Statement		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	76.7%	72.1 - 81.0%
Gross Margin	24.6%	19.0 - 27.9%
Operating Expenses:		
Selling Expenses	6.3%	4.3 - 9.9%
Delivery Expenses	1.1%	0.2 - 1.4%
Warehouse Expenses	3.3%	1.7 - 5.2%
General & Administrative Expenses	8.6%	7.1 - 10.4%
Occupancy Expenses	1.0%	0.6 - 2.2%
Other Operating Expenses	0.0%	0.0 - 0.8%
Total Operating Expenses	22.7%	19.7 - 27.4%
Net Operating Profit	2.1%	-0.3 - 3.4%
Non-Operating Income	1.7%	1.3 - 3.2%
Non-Operating Expenses	2.2%	0.5 - 3.8%
Net Profit Before Tax	1.8%	-1.9 - 3.7%
Net Profit After Tax	1.2%	-1.2 - 2.1%
Operating Expense Control		
Total Operating Expense to Net Sales	22.7%	19.7 - 27.4%
Total Operating Expense to Gross Margin	93.7%	84.6 - 102.0%
Non-People Expense to Net Sales	7.6%	6.6 - 10.8%
Non-People Expense to Gross Margin	32.4%	28.7 - 42.7%
Interest Expense		
Interest Expense to Net Sales	0.8%	0.2 - 2.6%
Times Interest Earned	3.8X	0.3 - 16.1X

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: NORTHERN CALIFORNIA, NORTHERN NEVADA & HAWAII

	TYPICAL	RANGE OF COMMON EXPERIENCE
Overall Performance		
Net Profit After Tax to Net Worth	6.80%	-3.72 - 10.37%
Total Assets to Net Worth	1.45X	1.29 - 2.26X
Net Profit After Tax to Total Assets	4.76%	-2.21 - 7.72%
Net Sales to Total Assets	2.15X	1.90 - 2.72X
Net Profit After Tax to Net Sales	2.00%	-0.90 - 3.70%
Net Profit Before Tax to Total Assets	6.22%	-0.82 - 10.66%
EBIT to Total Assets	6.74%	0.72 - 12.22%
Sales Analysis		
Net Sales($000)	$2,777	$1,719 - 11,221
Percent Sales Change from Prior Year	-6.67%	-17.04 - 1.61%
Sales Mix:		
Direct Sales	6.2%	0.0 - 11.4%
Warehouse Sales - Counter	44.5%	18.6 - 71.2%
Warehouse Sales - Delivery	49.3%	26.1 - 66.5%
TOTAL SALES	100.0%	100.0 - 100.0%
Product Sales Mix		
Plumbing Supplies & Equipment	63.7%	38.5 - 82.5%
Heating & Cooling Supplies & Equipment	13.2%	0.0 - 17.5%
Industrial P-V-F (Pipes-Valves-Fittings)	14.2%	0.0 - 23.5%
Other Industrial Supplies & Equipment	1.5%	0.0 - 3.5%
Other Products	7.4%	0.0 - 4.5%
TOTAL SALES	100.0%	100.0 - 100.0%
Gross Margin		
Gross Margin on Net Sales	28.4%	24.7 - 30.3%
Gross Margin on Direct Shipments	10.7%	5.3 - 13.0%
Gross Margin on Warehouse Sales	29.9%	24.6 - 33.2%
Asset and Financial Management		
Current Asset Turn (Sales/Current Assets)	2.50X	2.21 - 3.27X
Total Debt to Net Worth	44.6%	28.7 - 125.9%
Current Debt to Net Worth	38.7%	26.1 - 104.7%
Current Assets to Current Debt	3.55X	1.85 - 4.42X
Current Assets Minus Inventory/Curr Debt	1.46X	0.97 - 2.05X
Invoice/Transaction Data		
Billing Lines Per Invoice	5.8	4.4 - 9.4
Average Invoice Size	$196	$132 - 217
Average Billing Line	$26.42	$18.22 - 43.39

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: NORTHERN CALIFORNIA, NORTHERN NEVADA & HAWAII

	TYPICAL	RANGE OF COMMON EXPERIENCE
Personnel Productivity		
Sales Per Employee	$184,913	$131,198 - 215,226
Gross Margin Per Employee	$48,293	$41,014 - 55,479
Average Compensation Per Employee	$22,263	$18,225 - 25,974
Average Fringe Benefits Per Employee	$5,974	$3,508 - 7,675
Compensation & Fringes Per Employee	$26,410	$23,790 - 31,973
Payroll to Net Sales	13.0%	10.7 - 14.5%
Fringe Benefits to Net Sales	3.3%	2.1 - 4.0%
Payroll & Fringes to Net Sales	16.8%	13.4 - 18.4%
Payroll to Gross Margin	49.9%	38.1 - 52.5%
Fringe Benefits to Gross Margin	11.5%	8.6 - 14.9%
Payroll & Fringes to Gross Margin	60.0%	49.0 - 64.7%
Inventory Management		
Cost of Whse Goods Sold to Ave Inventory	3.34X	1.94 - 4.21X
No. of Days Average Inventory Carried	109 Days	87 - 188 Days
Total Cost of Goods Sold to Ave Inventory	3.45X	2.56 - 4.75X
Whse Gross Margin Return on Ave Inventory	106%	90 - 181%
Turn & Earn Profitability Index	90%	62 - 141%
Percent of Firms on LIFO	58.33%	
Accounts Receivable		
Average Collection Period	44 Days	41 - 52 Days
Gross Margin Return on Receivables	219%	189 - 243%
Aging of Receivable Dollars:		
Current	64.9%	61.7 - 76.4%
1-30 Days Past Due	14.4%	10.8 - 19.6%
31-60 Days Past Due	6.3%	4.5 - 8.0%
61-90 Days Past Due	4.2%	1.2 - 7.2%
Over 90 Days Past Due	10.1%	3.0 - 12.7%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current	$715	$396 - 941
1-30 Days Past Due	$581	$400 - 1,550
31-60 Days Past Due	$566	$351 - 1,323
61-90 Days Past Due	$640	$487 - 1,039
Over 90 Days Past Due	$2,500	$2,026 - 4,319
Total	$747	$505 - 1,325
Aging of Receivable Accounts:		
Current	72.1%	68.1 - 79.0%
1-30 Days Past Due	13.2%	10.1 - 14.6%
31-60 Days Past Due	6.6%	4.7 - 8.6%
61-90 Days Past Due	3.5%	2.0 - 5.1%
Over 90 Days Past Due	4.6%	1.4 - 5.6%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: NORTHERN CALIFORNIA, NORTHERN NEVADA & HAWAII

	TYPICAL	RANGE OF COMMON EXPERIENCE
Income Statement		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	72.3%	69.7 - 75.3%
Gross Margin	28.4%	24.7 - 30.3%
Operating Expenses:		
Selling Expenses	7.4%	4.4 - 13.3%
Delivery Expenses	1.7%	0.4 - 3.0%
Warehouse Expenses	3.6%	2.8 - 4.1%
General & Administrative Expenses	7.7%	6.2 - 11.3%
Occupancy Expenses	1.5%	0.8 - 3.2%
Other Operating Expenses	0.0%	0.0 - 0.9%
Total Operating Expenses	24.6%	23.4 - 28.3%
Net Operating Profit	1.4%	-0.6 - 6.6%
Non-Operating Income	2.3%	1.4 - 2.8%
Non-Operating Expenses	1.7%	1.4 - 2.6%
Net Profit Before Tax	2.6%	0.0 - 4.5%
Net Profit After Tax	2.0%	-0.9 - 3.7%
Operating Expense Control		
Total Operating Expense to Net Sales	24.6%	23.4 - 28.3%
Total Operating Expense to Gross Margin	94.5%	78.0 - 102.1%
Non-People Expense to Net Sales	7.9%	7.1 - 11.8%
Non-People Expense to Gross Margin	33.5%	25.5 - 42.2%
Interest Expense		
Interest Expense to Net Sales	0.7%	0.1 - 1.9%
Times Interest Earned	2.3X	0.4 - 66.7X

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: PACIFIC SOUTHWEST (AZ, SOUTHERN CA, SOUTHERN NV)

	TYPICAL	RANGE OF COMMON EXPERIENCE
Overall Performance		
Net Profit After Tax to Net Worth	4.54%	-10.20 - 7.99%
Total Assets to Net Worth	1.80X	1.59 - 3.11X
Net Profit After Tax to Total Assets	2.37%	-9.34 - 4.44%
Net Sales to Total Assets	2.86X	2.49 - 3.50X
Net Profit After Tax to Net Sales	0.60%	-4.70 - 1.30%
Net Profit Before Tax to Total Assets	0.93%	-9.33 - 3.85%
EBIT to Total Assets	1.20%	Insufficient Data
Sales Analysis		
Net Sales ($000)	$3,902	$1,756 - 9,279
Percent Sales Change from Prior Year	-9.76%	Insufficient Data
Sales Mix:		
Direct Sales	12.0%	Insufficient Data
Warehouse Sales - Counter	21.2%	Insufficient Data
Warehouse Sales - Delivery	66.7%	Insufficient Data
TOTAL SALES	100.0%	100.0 - 100.0%
Product Sales Mix		
Plumbing Supplies & Equipment	59.4%	0.0 - 100.0%
Heating & Cooling Supplies & Equipment	1.1%	0.0 - 0.0%
Industrial P-V-F (Pipes-Valves-Fittings)	38.7%	0.0 - 100.0%
Other Industrial Supplies & Equipment	0.7%	0.0 - 0.0%
Other Products	0.0%	0.0 - 0.0%
TOTAL SALES	100.0%	100.0 - 100.0%
Gross Margin		
Gross Margin on Net Sales	21.0%	Insufficient Data
Gross Margin on Direct Shipments	8.5%	Insufficient Data
Gross Margin on Warehouse Sales	23.6%	Insufficient Data
Asset and Financial Management		
Current Asset Turn (Sales/Current Assets)	3.49X	2.72 - 3.85X
Total Debt to Net Worth	68.6%	58.7 - 210.6%
Current Debt to Net Worth	60.0%	55.0 - 175.9%
Current Assets to Current Debt	2.30X	1.64 - 3.15X
Current Assets Minus Inventory/Curr Debt	1.02X	0.59 - 1.62X
Invoice/Transaction Data		
Billing Lines Per Invoice	5.0	Insufficient Data
Average Invoice Size	$370	Insufficient Data
Average Billing Line	$44.15	Insufficient Data

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: PACIFIC SOUTHWEST (AZ, SOUTHERN CA, SOUTHERN NV)

	TYPICAL	RANGE OF COMMON EXPERIENCE
Personnel Productivity		
Sales Per Employee	$209,104	$159,723 - 229,229
Gross Margin Per Employee	$37,297	$34,575 - 54,073
Average Compensation Per Employee	$24,373	Insufficient Data
Average Fringe Benefits Per Employee	$4,946	Insufficient Data
Compensation & Fringes Per Employee	$30,669	$11,695 - 32,175
Payroll to Net Sales	11.8%	Insufficient Data
Fringe Benefits to Net Sales	2.5%	Insufficient Data
Payroll & Fringes to Net Sales	14.0%	9.3 - 17.3%
Payroll to Gross Margin	51.3%	Insufficient Data
Fringe Benefits to Gross Margin	11.6%	Insufficient Data
Payroll & Fringes to Gross Margin	61.4%	31.4 - 68.4%
Inventory Management		
Cost of Whse Goods Sold to Ave Inventory	2.46X	Insufficient Data
No. of Days Average Inventory Carried	150 Days	Insufficient Data
Total Cost of Goods Sold to Ave Inventory	4.67X	2.88 - 9.78X
Whse Gross Margin Return on Ave Inventory	83%	Insufficient Data
Turn & Earn Profitability Index	60%	Insufficient Data
Percent of Firms on LIFO	42.86%	
Accounts Receivable		
Average Collection Period	39 Days	34 - 49 Days
Gross Margin Return on Receivables	210%	Insufficient Data
Aging of Receivable Dollars:		
Current	68.6%	66.4 - 75.2%
1-30 Days Past Due	16.4%	7.9 - 23.0%
31-60 Days Past Due	6.7%	2.1 - 9.1%
61-90 Days Past Due	4.0%	0.8 - 4.2%
Over 90 Days Past Due	4.3%	0.0 - 8.8%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current	$1,521	Insufficient Data
1-30 Days Past Due	$1,003	Insufficient Data
31-60 Days Past Due	$651	Insufficient Data
61-90 Days Past Due	$604	Insufficient Data
Over 90 Days Past Due	$545	Insufficient Data
Total	$1,425	Insufficient Data
Aging of Receivable Accounts:		
Current	66.0%	Insufficient Data
1-30 Days Past Due	16.0%	Insufficient Data
31-60 Days Past Due	6.9%	Insufficient Data
61-90 Days Past Due	6.1%	Insufficient Data
Over 90 Days Past Due	4.8%	Insufficient Data
Total	100.0%	Insufficient Data

AMERICAN SUPPLY ASSOCIATION 1983 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: PACIFIC SOUTHWEST (AZ, SOUTHERN CA, SOUTHERN NV)

	TYPICAL	RANGE OF COMMON EXPERIENCE
Income Statement		
Net Sales	100.0%	Insufficient Data
Cost of Goods Sold	80.0%	Insufficient Data
Gross Margin	21.0%	Insufficient Data
Operating Expenses:		
Selling Expenses	6.8%	Insufficient Data
Delivery Expenses	1.8%	Insufficient Data
Warehouse Expenses	2.6%	Insufficient Data
General & Administrative Expenses	4.2%	Insufficient Data
Occupancy Expenses	1.3%	Insufficient Data
Other Operating Expenses	0.6%	Insufficient Data
Total Operating Expenses	22.3%	Insufficient Data
Net Operating Profit	-0.4%	Insufficient Data
Non-Operating Income	0.8%	Insufficient Data
Non-Operating Expenses	0.8%	Insufficient Data
Net Profit Before Tax	-0.4%	Insufficient Data
Net Profit After Tax	0.6%	-4.7 - 1.3%
Operating Expense Control		
Total Operating Expense to Net Sales	22.3%	Insufficient Data
Total Operating Expense to Gross Margin	103.0%	Insufficient Data
Non-People Expense to Net Sales	7.8%	Insufficient Data
Non-People Expense to Gross Margin	36.0%	Insufficient Data
Interest Expense		
Interest Expense to Net Sales	0.8%	Insufficient Data
Times Interest Earned	0.5X	Insufficient Data

APPENDIX

Survey Methodology / Demographics

In late March, 1983 the American Supply Association mailed strictly confidential questionnaires to all P-H-C-P wholesaler members. The primary intent of this survey was to collect detailed financial and operating information from member firms by specific geographic region, sales volume size and type of product emphasis.

Once the questionnaires were received by Industry Insights, all company identification, if any, was removed and a confidential company identification code was assigned. The data was then coded, keyed to tape, and edited by Industry Insights financial analysts for validity. Computer processing was then performed on all data to insure statistical validity and to produce the financial and operating ratios contained in this study.

In all, 318 completed and usable questionnaires were received by Industry Insights representing approximately 1,050 different wholesaler locations (including headquarters). In particular, the statistical sample consists of the following:

	Number of Reporting Firms
ALL REPORTING FIRMS	318
BY PRODUCT EMPHASIS:	
Plumbing Supplies & Equipment Firms (those that obtain more than 50% of sales from plumbing products)	148
Industrial Pipe, Valves and Fittings Firms (those with more than 50% of sales from Industrial P-V-F)	46
Plumbing Supplies & Equipment and Industrial Pipe, Valves and Fittings Firms (those with more than 50% of sales from plumbing and Industrial P-V-F products combined but less than 50% in each category alone)	54
HVAC & Other Emphasis Firms (those companies that cannot be classified in any of the three above groups; or, those firms with less than 50% of sales in combined plumbing supplies and equipment, and Industrial P-V-F products)	70
BY PRODUCT EMPHASIS AND SALES VOLUME SIZE:	
Plumbing Supplies & Equipment Firms:	
Sales Under $3,000,000	53
Sales $3,000,000 to $7,000,000	52
Sales $7,000,000 to $12,000,000	17
Sales Over $12,000,000	26

	Number of Reporting Firms
BY PRODUCT EMPHASIS AND SALES VOLUME SIZE: (continued)	
Industrial Pipe, Valves and Fittings Firms:	
Sales Under $4,000,000	18
Sales $4,000,000 to $12,000,000	15
Sales Over $7,000,000	13
Plumbing Supplies & Equipment and Industrial Pipe, Valves and Fittings Firms:	
Sales Under $3,000,000	17
Sales $3,000,000 to $7,000,000	22
Sales Over $7,000,000	15
HVAC & Other Emphasis Firms:	
Sales Under $3,000,000	25
Sales $3,000,000 to $8,000,000	24
Sales Over $8,000,000	21
BY GEOGRAPHIC REGION:	
New England (CT,ME,MA,NH,RI,VT)	28
New York (excluding NYC)	21
Long Island and Metro NYC	2
Middle Atlantic (DE,E.PA,MD,NJ,Wa. DC)	30
East Central (IN,OH,W.PA, WV)	43
Southern (AL,FL,GA,KY,MS,NC,SC,TN,VA)	35
Michigan (excluding Upper MI)	14
Metro Chicago, Northern IL	9
Mid-America Region (IA,KS,MN,MO,NE,ND,SD, Upper MI,WI)	63
Louisiana, Texas, New Mexico, Oklahoma and Arkansas	25
Rocky Mountain (CO,ID,MT,UT,WY)	12
Pacific Northwest (AK,OR,WA)	11
Northern California, Northern Nevada, and Hawaii	14
Pacific Southwest (AZ, S.CA, S.NV)	7
Region Not Designated	4

The statistical information contained in this report is believed to be representative of the companies responding to the survey. All reasonable efforts were taken to assure data comparability within the limitations of accounting reporting procedures. However, the statistical validity of any given number varies depending upon sample sizes and the amount of consistency among responses for that particular ratio. For those individuals interested in more statistical detail than is contained in this report (such as sample sizes and/or standard deviation by specific ratio), contact:

Industry Insights, Inc.
2564 Billingsley Road
Columbus, Ohio 43085
(614) 889-9284

Ratio Definitions and Sample Calculations

A primary purpose of the ASA Operating Performance Report of the P-H-C-P Wholesaler Industry is to provide a basis for comparing your own firm's performance with industry comparatives. In order to do this, it is necessary to calculate your firm's individual company ratios using the same methods that were used to compute the ratios in this report. These definitions appear on the pages which follow.

To further clarify the computational process, this section of the report also contains a completed survey form and sample calculations for a purely hypothetical company.

Ratio Definitions and Sample Calculations

Performance Measure	Method of Computation () Indicates Survey Line #	Computational Example: Sample Co.	Suggested Uses
Overall Performance			
• Net Profit After Tax to Net Worth (%)	(16) Net Profit After Tax ÷ (27) Net Worth	$69,815 ÷ 1,072,599 = 6.5%	Overall financial performance from the owner's standpoint.
• Total Assets to Net Worth (X)	(23) Total Assets ÷ (27) Net Worth	$2,369,891 ÷ 1,072,599 = 2.2x	Setting policies concerning amount of debt vs. equity in the business.
• Net Profit After Tax to Total Assets (%)	(16) Net Profit After Tax ÷ (23) Total Assets	$69,815 ÷ 2,369,891 = 2.9%	Overall financial performance from a management standpoint.
• Net Sales to Total Assets (X)	(1) Net Sales ÷ (23) Total Assets	$5,884,780 ÷ 2,369,891 = 2.5x	Asset management--productivity of total asset base.
• Net Profit After Tax to Net Sales (%)	(16) Net Profit After Tax ÷ (1) Net Sales	$69,815 ÷ 5,884,780 = 1.2%	Margin management (gross margin and expenses)
• Net Profit Before Tax to Total Assets (%)	(14) Net Profit Before Tax ÷ (23) Total Assets	$114,136 ÷ 2,369,891 = 4.8%	Overall financial performance from a management standpoint ignoring tax considerations.
• EBIT to Total Assets (%)	[(14) Net Profit Before Tax + (48) Interest] ÷ (23) Total Assets	[$114,136 +13,092] ÷ 2,369,891 = 5.4%	Same as previous ratio but ignores interest expense (leverage, not operations related)
Sales Analysis			
• Percent Sale Change from prior year	[(1) Net Sales - (41) Previous Years Sales] ÷ (41) Previous Years Sales	[$5,884,780 - 6,002,478] ÷ 6,002,478 = (2.0)	Indication of company growth. Caution should be used due to inflationary distortions.
Asset and Financial Management			
• Current Asset Turn (X)	(1) Net Sales ÷ (21) Total Current Assets	$5,884,780 ÷ 2,258,150 = 2.6x	Asset management - productivity of current asset base.
• Total Debt to Net Worth (%)	(26) Total Liabilities ÷ (27) Net Worth	$1,297,292 ÷ 1,072,599 = 120.9%	Measures overall leverage. Use to set policy of how much debt is employed relative to owner's funds.
• Current Debt to Net Worth (%)	(24) Current Liabilities ÷ (27) Net Worth	$520,042 ÷ 1,072,599 = 48.5%	A measure of the financial mix of the firm.
• Current Assets to Current Debt (x)	(21) Total Current Assets ÷ (24) Total Current Liabilities	$2,258,150 ÷ 520,042 = 4.3X	Good overall measures of liquidity. Used to stay within guides set by suppliers and creditors.
• Current Assets Less Inventory to Current Debt (X)	[(21) Total Current Assets - (19) Inventory] ÷ (24) Total Current Liabilities	[$2,258,150 - 983,840] ÷ 520,042 = 2.5x	Same as above ratio.
Transaction Data			
• Billing Lines Per Invoice	(47) Annual Billing Lines ÷ (46) Total No. Invoices	171,872 ÷ 21,484 = 8	Gives some indication of invoicing efficiency.
• Average Invoice Size ($)	(1)Net Credit ÷ (46) Total No. Invoices	$5,884,780 X .83 ÷ 21,484 = $227.35	Indicates the typical size of an invoice and thus add-on purchase efficiency.
• Average Billing Line ($)	(1)Net Credit ÷ (47) Annual Billing Lines	$5,884,780 X .83 ÷ 171,872 = $28.42	Indicates the size of a typical item billed.
Personnel Productivity			
• Payroll to Net Sales (%)	(29) Total Payroll Expenses ÷ (1) Net Sales	$604,313 ÷ 5,884,780 = 10.3%	Overall indicator of payroll cost control. Inflation proof. Compare: overtime; vs. industry; by store.
• Fringe Benefits to Net Sales (%)	(30) Total Fringe & Payroll Taxes ÷ (1) Net Sales	$234,303 ÷ 5,884,780 = 4.0%	Indicates how much of sales are paid in fringe benefits. Compare: overtime; vs. industry.
• Payroll and Fringes to Net Sales (%)	[(29) Payroll Expense + (30) Fringe Benefits] ÷ (1) Net Sales	[$604,313 + 234,303] ÷ 5,884,780 = 14.3%	Indicator of all personnel related costs.

Ratio Definitions and Sample Calculations

Performance Measure	Method of Computation () Indicates Survey Line #	Computational Example: Sample Co.	Suggested Uses
Personnel Productivity (cont)			
• Payroll to Gross Margin (%)	(29) Total Payroll Expense ÷ (3) Gross Profit on Sales	$604,313 ÷ 1,492,481 = 40.5%	Indicates the portion of gross profits that are used in payroll costs.
• Fringe Benefits to Gross Margin (%)	(30) Total Fringe Benefits ÷ (3) Gross Profit on Sales	$234,303 ÷ 1,492,481 = 15.7%	Same as above but relative to fringe benefits.
• Payroll and Fringes to Gross Margin (%)	[(29) Total Payroll + (30) Total Fringes] ÷ (3) Gross Profit on Sales	[$604,313 + 234,303] ÷ 1,492,481 = 56.2%	Indicator of all personnel related costs that are used in gross margin production.
Inventory Management			
• Cost of Whse Goods Sold to Average Inventory (x)	[(36) Total Whse Sales - (39) Whse Gross Profit] ÷ [((19) Inventory + (42) Previous Years Inventory) ÷ 2]	[$5,240,136 - 1,396,217] ÷ [(983,840 + 992,313) ÷ 2] = 3.9x	Measure of inventory productivity. Compare to industry, over time or product categories.
• No. of Days Average Inventory Carried	[((19) Inventory + (42) Previous Years Inventory) ÷ 2] ÷ [((35) Whse Sales-(39) Whse Gross Profit) ÷ 365]	[($983,840 + 992,313) ÷ 2] ÷ [(5,240,136-1,396,217) ÷ 365] = 94 days	Similar in value to above measure. Shows how quickly inventory is moving.
• Total Cost of Goods Sold to Average Inventory (x)	(2) Total Cost of Goods Sold ÷ [(19) Inventory + (42) Previous Years Inventory) ÷ 2]	$4,392,299 ÷ [(983,840 + 992,313) ÷ 2] = 4.4x	Shows how many times you were able to "turn over" your inventory.
• Whse Gross Margin Return on Average Inventory (%)	(39) Whse Gross Profit ÷ [((19) Inventory + (42) Previous Years Inventory) ÷ 2]	$1,396,217 ÷ [(983,840 + 992,313) ÷ 2] = 141.3%	Overall measure of inventory, profitability and productivity. Combines margin and turnover.
• Turn & Earn Profitability Index (%)	[((36) Whse Sales-(39) Whse Gross Profit) ÷ ((19) Inventory + (42) Previous Years Inventory) ÷ 2] X [((39) Whse Gross Profit ÷ (35) Whse Sales) X 100]	[($5,240,136 - 139,217) ÷ (983,840 + 992,313) ÷ 2] X [(1,396,217 ÷ 5,240,136) X 100] = 103.9	Another return-on-investment measure which combines margin and turnover.
Accounts Receivable			
• Average Collection Period	(18) Accounts & Notes Receivable (Net) ÷ [(1) Net Sales X (1.0 - (44) % Cash Sales) ÷ 365]	1,096,734 ÷ [5,884,780 X (1.0 - .17) ÷ 365] = 82 days	Measuring effectiveness of various collection policies. Compare to industry and over time.
• Gross Margin Return on Receivables (%)	[((3) Gross Profit ÷ (1) Net Sales) X 100] X [365 ÷ Average Collection Period]	[(1,492,481 ÷ 5,884,780) X 100] X [365 ÷ 82] = 112.9%	Indicator of how much gross margin dollars are being generated on your accounts receivables.
Operating Expense Control			
• Total Operating Expense to Net Sales (%)	(10) Total Operating Expense ÷ (1) Net Sales	$1,323,621 ÷ 5,884,780 = 22.5%	Conventional measure used for controlling total operating costs.
• Total Operating Expense to Gross Margin (%)	(10) Total Operating Expense ÷ (3) Gross Profit	$1,323,621 ÷ 1,492,481 = 88.7%	A somewhat more specific measure than the one above.
• Non-People Expense to Net Sales (%)	[(10) Total Operating Expense - ((29) Payroll + (30) Fringes)] ÷ (1) Net Sales	[$1,323,621 - (604,313 + 234,303)] ÷ 5,884,780 = 8.2%	A measure for controlling all operating costs except personnel costs.
• Non-People Expense to Gross Margin (%)	[(10) Total Operating Expense - ((29) Payroll + (30) Fringes)] ÷ (3) Gross Profit	[$1,323,621 - (604,313 + 234,303)] ÷ 1,492,481 = 32.5	Same as above but somewhat finer.
Interest Expense			
• Interest Expense to Net Sales (%)	(48) Interest Expense ÷ (1) Net Sales	$13,092 ÷ 5,884,780 = 0.2%	An indicator of how much debt financing is costing the firm relative to sales.
• Times Interest Earned (X)	[(14) Net Profit Before Taxes + (48) Interest] ÷ (48) Interest	[$114,136 + 13,092] ÷ 13,092 = 9.7x	Indicates the ease in which your company can pay interest costs out of earnings.

SAMPLE COPY
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CODE NUMBER

AMERICAN SUPPLY ASSOCIATION

1983 ANNUAL OPERATING PERFORMANCE SURVEY
(Based on 1982 Financial Results)

With your help, the 1983 ASA Annual Operating Performance Survey (of 1982 financial information) promises to be the best ever. Building upon the format and content improvements first introduced last year, this year's study will also provide greater expense detail, more regional information, and other added features. Most importantly, however, a confidential Individual Company Report of your own firm's financial ratios displayed alongside the appropriate industry comparatives will be available to you *at no charge* just for participating in the study. To do so, please take the time to fill in the data requested on this Survey Form using the following guidelines:

(1) Enter figures from your completed fiscal year which ended nearest to December 31, 1982. Full year data is required. Financial data need not be audited.

(2) Dollar amounts should be rounded to the nearest dollar. Eliminate "cents." Columns labeled "Code #" are for internal use only and should be ignored.

(3) Please report on the basis of your total firm rather than for individual branches.

While it is not necessary to fill in every line, be as complete as possible to assure that your Individual Company Report will be much more useful. *Or, if you prefer, just fill in the information on pages 2 and 4 and forward your "Income Statement and Balance Sheet" financials (or your most recent annual Income Tax Form") for the most recent 12 month period along with this Survey Form.*

Please send your response in the enclosed postage-paid, self-addressed envelope before **May 31, 1983 to:**

Industry Insights, Inc. • P.O. Box 155 • Dublin, Ohio 43017 • (614) 889-8284

Indicate below to whom any questions regarding this Form should be directed and to whom the final report should be sent. Industry Insights will detach this coupon to assure confidentiality.

Name (Questions) ______________________ Phone (__) __________

Name (Report) ______________________

Company ______________________

Address ______________________

City __________ State ________ Zip ________

CODE NUMBER

CONFIDENTIAL
AMERICAN SUPPLY ASSOCIATION
1983 ANNUAL OPERATING PERFORMANCE SURVEY
(Based on 1982 Financial Results)

CLASSIFICATION DATA

Ending 12 month period upon which this data is based. (1) ______________
month/day/year

Number of locations (including headquarters) which are included in the data reflected on this Survey Form. (Do not submit separate forms for branches.)

(2) ______________

Regional Identification: Check (√) only one of the boxes below:

		Territory	Regional Association Affiliate
	1) ☐	CT, ME, MA, NH, RI, VT	PHWNE
	2) ☐	NY (excluding NYC)	NYSPHW
	3) ☐	Long Island and Metro NYC	JCA
	4) ☐	DE, E.PA, MD, NJ, Wa.D.C.	MAWA
	5) ☐	IN, OH, W.PA, WV	CWA
(3)	6) ☐	AL, FL, GA, KY, MS, NC, SC, TN, VA	SWA
	7) ☐	Michigan (excluding Upper MI)	
	8) ☐	Metro Chicago, Northern IL	
	9) ☐	IA, KS, MN, MO, NE, ND, SD, Upper MI, WI	MASA
	10) ☐	LA, TX, NM, OK, AR	WDA
	11) ☐	Rocky Mountain (CO, ID, MT, UT, WY)	
	12) ☐	Pacific NW (AK, OR, WA)	
	13) ☐	HI, N.CA, N.NV	NCSA
	14) ☐	AZ, S.CA, S.NV	PSDA

Product Sales Mix--Please indicate the percentage of your total company sales accounted for by each type of product (estimate if necessary):

(4) ______ Plumbing Supplies & Equipment, IncludingPlumbing Pipe, Valves & Fittings.

(5) ______ Hydronic & Warm Air Heating & Air Conditioning Supplies & Equipment.

(6) ______ Industrial P-V-F (Industrial Pipe, Valves & Fittings).

(7) ______ Other Industrial Supplies & Equipment.

(8) ______ Other (Please specify: ______________________________).

(9) 100% Total

INCOME STATEMENT ITEMS

LINE NO.		CODE #	AMOUNT IN DOLLARS (Omit Cents)
1	Net Sales (Include direct shipments. Deduct claims, returns & allowances but not cash discounts allowed on sales. Exclude sales taxes.)	(10)	$
2	Cost of Goods Sold (Include inbound transportation costs. Subtract purchase claims, returns and allowances but not cash discounts on purchases.) (FIFO basis)*	(11)	$
3	Gross Profit on Sales (Line 1 minus Line 2) (FIFO basis)	(12)	$
4	Selling Expenses (refer to definition sheet)	(13)	$
5	Delivery Expenses (refer to definition sheet)	(14)	$
6	Warehouse Expenses (refer to definition sheet)	(15)	$
7	General & Administrative Expenses (refer to definition sheet)	(16)	$
8	Occupancy Expenses (refer to definition sheet)	(17)	$
9	Other Operating Expenses (refer to definition sheet)	(18)	$
10	Total Operating Expenses (Sum of Lines 4 thru 9)***	(19)	$
11	Net Operating Profit (Line 3 minus Line 10) (FIFO)	(20)	$
12	Non-Operating Income (Include cash discounts on purchases, interest earned and other income items not directly related to the primary operations of the business)	(21)	$
13	Non-Operating Expenses (Include cash discounts allowed on sales, interest paid, losses on sale of fixed assets, and other non-operating expenses or losses not already included above)	(22)	$
14	Net Profit Before Taxes (Line 11 plus Line 12 minus Line 13) (FIFO)	(23)	$
15	Income Taxes (Federal, State and City)	(24)	$
16	Net Profit After Income Taxes (Line 14 minus Line 15) (FIFO)	(25)	$

BALANCE SHEET ITEMS

17	Cash (Includes savings accounts, CD's, and other temporary investments)	(26)	$
18	Accounts & Notes Receivable, Trade (Net)	(27)	$
19	Inventory (FIFO basis)	(28)	$
20	Other Current Assets (Such as prepaid items, supplies, etc.)	(29)	$
21	Total Current Assets (Sum of Lines 17 thru 20)	(30)	$
22	All Other Assets (Any assets not included above)	(31)	$
23	Total Assets (Sum of Lines 21 and 22) (Equal to Line 28) (FIFO basis)	(32)	$
24	Total Current Liabilities (Due in less than 1 year)	(33)	$
25	Total Long-Term Liabilities (Due in more than 1 year)	(34)	$
26	Total Liabilities (Sum of Lines 24 and 25)	(35)	$
27	Total Net Worth (or Owner's Equity) (FIFO)**	(36)	$
28	Total Liabilities & Net Worth (Sum of Lines 26 and 27) (Equal to Line 23)	(37)	$

*If on LIFO, subtract your "Annual additions to your LIFO reserves" from your cost of goods sold to obtain FIFO cost of goods sold.

**If on LIFO, add your total LIFO Reserve to your book net worth to get your FIFO net worth.

***If you are a Subchapter S Corporation or a partnership, allocate an appropriate management salary for Owner-Managers to the applicable operating expense category(s) and to total operating expense. This would be an amount similar to what would have to be paid to a non-equity owning manager or managers. Doing this will assure that your numbers will be comparable to corporations paying separate management salaries.

COMPENSATION DATA

LINE NO.		CODE #	AMOUNT
29	Total Payroll Expenses (Include salaries, bonuses and commissions paid to all employees, including owners; exclude fringe benefits and payroll taxes)	(38)	$
30	Total of Fringe Benefit Payments and Payroll Taxes (Include company pension and profit sharing payments plus FICA, Workman's Compensation, Unemployment, Group Insurance, etc., for all employees, including owners)	(39)	$
31	Gross Income of the Highest Paid Employee, Including Owners (refers to the person's W-2 statement gross income--as from salaries, commissions and bonuses, but excluding fringe benefits and payroll taxes)	(40)	$
32	Gross Income (as above) of the Second Highest Paid Employee (including Owners)	(41)	$

WAREHOUSE AND DIRECT SALES DATA

33	Dollar Amount of Direct (Drop) Shipment Sales	(42)	$
34	Dollar Amount of Warehouse Sales--Counter	(43)	$
35	Dollar Amount of Warehouse Sales--Delivery	(44)	$
36	Total Dollar Amount of Warehouse Sales (Sum of Lines 34 and 35)	(45)	$
37	Total Sales (Sum of Lines 33 and 36) (Equal to Line 1)	(46)	$
38	Dollar Amount of Gross Profit on Direct (Drop) Shipments	(47)	$
39	Dollar Amount of Gross Profit on Warehouse Sales (Report on FIFO basis)	(48)	$
40	Total FIFO Gross Profit (Sum of Lines 38 and 39) (Equal to Line 3)	(49)	$

ADDITIONAL DATA (VERY IMPORTANT)

41	Previous Year's Net Sales	(50)	$
42	Previous Year's Ending Inventory (FIFO basis)	(51)	$
43	Average Number of Employees During 1982 (Include all management personnel and all other employees. Convert part-time employees into full-time equivalents depending upon how much they worked relative to full-time employees. For example, two half-time people each working 12 months would be counted as one employee)	(52)	#
44	Percent of Total 1982 Sales That Were Made for Cash (estimate if necessary)	(53)	%
45	Were you on a LIFO inventory valuation system during 1982?	(54)	Yes ☐ 1 No ☐ 2
46	Total Number of Customer Invoices During the Year	(55)	#
47	Annual # of Billing Lines on Customer Invoices (estimate if necessary)	(56)	#
48	Interest Paid in 1982 (Also include this amount in Line 13)	(57)	$

DETAIL OF ACCOUNTS RECEIVABLE (END OF YEAR)

LINE NO.		CODE #	NUMBER OF ACCOUNTS	CODE #	AMOUNT IN DOLLARS
49	Current (Amount is being paid as contractually agreed)	(58)	#	(64)	$
50	1-30 Days Past Due	(59)	#	(65)	$
51	31-60 Days Past Due	(60)	#	(66)	$
52	61-90 Days Past Due	(61)	#	(67)	$
53	Over 90 Days Past Due	(62)	#	(68)	$
54	Total Accounts Receivable (Sum of Lines 49 thru 53) (Equal to Line 18)	(63)	#	(69)	$

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DESCRIPTION OF OPERATING EXPENSE CATEGORIES

Selling Expenses

Selling executive salaries, commissions and bonuses; outside and inside salespeople salaries, commissions and bonuses; other selling personnel (clerical, secretarial and order takers) salaries, bonuses and wages; selling personnel fringe benefits (life insurance; hospitalization; other employee insurance; social security taxes; unemployment taxes; pension trust contributions; profit-sharing trust contributions; other employee welfare; officer's life insurance).

Selling related: supplies; stationery; printing; automobile expense; travel and entertainment; dues and memberships; conventions and meetings; education and training; advertising; promotions; brochures; showrooms; merchandise shows; miscellaneous.

Delivery Expenses

Delivery supervisor(s) salaries and bonuses; other delivery personnel (clerical, secretarial, drivers) salaries, bonuses and wages; delivery personnel fringe benefits (life insurance; hospitalization; other employee insurance; social security taxes; unemployment taxes; pension trust contributions; profit-sharing trust contributions; other employee welfare).

Delivery related: supplies; gas and oil; tires; other automotive supplies; towel and uniform services; trucks, automobiles and other equipment repairs and maintenance; insurance (automobiles and trucks); licenses; equipment rental; trucks, automobiles and other equipment depreciation; dues and memberships; education and training; travel and entertainment; delivery services (cartage, freight, express); miscellaneous.

Warehouse Expenses

Warehouse supervisor salaries and bonuses; other warehouse personnel (clerical, secretarial, laborers, and other) salaries, bonuses and wages; warehouse personnel fringe benefits (life insurance; hospitalization; other employee insurance; social security taxes; unemployment taxes; pension trust contributions; profit-sharing trust contributions; other employee welfare).

Warehouse related: supplies; travel and uniform services; equipment repairs and maintenance; insurance (inventory); equipment rental and depreciation; education and training; travel and entertainment; miscellaneous.

General and Administrative Expenses

Executive salaries and bonuses; supervisor salaries and bonuses; other salaries and bonuses; general and administrative personnel fringe benefits (life insurance; hospitalization; other employee insurance; social security taxes; unemployment taxes; pension trust contributions; profit-sharing trust contributions; other employee welfare; officer's life insurance).

General and administrative related: supplies; stationery and printing; travel and uniform services; telephone and telegraph; postage; automobiles and other equipment repairs, maintenance and depreciation; insurance (property, automotive, etc.); licenses; equipment and automobile rental; furniture and fixtures depreciation; automobile expense; travel and entertainment; dues and memberships; conventions and meetings; education and training; employment advertising; collection expense; cash over or short; donations; accounting services; legal services; other services; directors fees; miscellaneous. Also include bad debts written off.

Occupancy Expenses

Facilities management supervisor salaries and bonuses; janitor and maintenance personnel wages; occupancy personnel fringe benefits (life insurance; hospitalization; other employee insurance; social security taxes; unemployment taxes; pension trust contributions; profit-sharing trust contributions; other employee welfare).

Janitor and maintenance supplies; building and building equipment repairs and maintenance; janitor service; building and building equipment insurance; real estate taxes; rent (if applicable); building equipment rental; utilities (power, light, water, heat); building and building equipment depreciation (if applicable); miscellaneous.

Other Operating Expenses

All operating expenses not specified above.